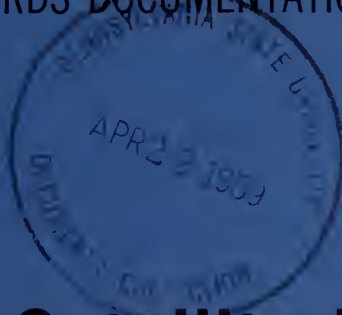




# Environmental Data Service

KEY TO METEOROLOGICAL RECORDS DOCUMENTATION NO. 5.316



## **Catalog of Meteorological Satellite Data- ESSA 3 and ESSA 5 Television Cloud Photography**

October 1 – December 31, 1967

## PURPOSE

The Key to Meteorological Records Documentation Series has been established to provide guidance information to research personnel making use of climatological data.

Frequently users of such data have found it necessary to spend a great deal of time establishing whether the criteria for observing or computing various elements have changed over the period of record or in what form the data are available.

It is therefore hoped that the presentation of this series may not only conserve valuable time but may have a direct influence in improving the accuracy of research results.

## EARLIER TIROS AND ESSA DATA CATALOGS

Earlier catalogs of TIROS and ESSA Meteorological Satellite data are available in this series, as follows:

- No. 5.31 "Catalogue of Meteorological Satellite Data - TIROS I Television Cloud Photography", published in 1961, price 70 cents.
- No. 5.32 "Catalogue of Meteorological Satellite Data - TIROS II Television Cloud Photography", published in 1963, price 20 cents.
- No. 5.33 "Catalogue of Meteorological Satellite Data - TIROS III Television Cloud Photography", published in 1962, price 70 cents.
- No. 5.34 "Catalogue of Meteorological Satellite Data - TIROS IV Television Cloud Photography", published in 1963, price \$1.00.
- No. 5.35 "Catalogue of Meteorological Satellite Data - TIROS V Television Cloud Photography", published in 1964, price \$1.75.
- No. 5.36 "Catalogue of Meteorological Satellite Data - TIROS VI Television Cloud Photography", published in 1964, price \$2.00.
- No. 5.37 "Catalogue of Meteorological Satellite Data - TIROS VII Television Cloud Photography Part 1 June 19, 1963 to December 31, 1963", published in 1965, price \$1.25.
- No. 5.37 "Catalogue of Meteorological Satellite Data - TIROS VII Television Cloud Photography Part 2 January 1, 1964 to June 30, 1964", published in 1965, price \$1.00.
- No. 5.37 "Catalogue of Meteorological Satellite Data - TIROS VII Television Cloud Photography Part 3 July 1, 1964 to December 30, 1964", published in 1965, price \$1.00.
- No. 5.37 "Catalogue of Meteorological Satellite Data - TIROS VII Television Cloud Photography Part 4 January 1, 1965 to December 31, 1965", published in 1966, price 45 cents.
- No. 5.38 "Catalogue of Meteorological Satellite Data - TIROS VIII Television Cloud Photography Part 1 December 21, 1963 to June 30, 1964", published in 1965, price \$1.00.
- No. 5.38 "Catalogue of Meteorological Satellite Data - TIROS VIII Television Cloud Photography Part 2 July 1, 1964 to December 31, 1964", published in 1965, price \$1.00.

(Continued on inside back cover)



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KEY TO METEOROLOGICAL RECORDS DOCUMENTATION NO. 5.316

**Catalog of  
Meteorological Satellite Data-  
ESSA 3 and ESSA 5 Television  
Cloud Photography**

October 1–December 31, 1967

WASHINGTON, D.C.  
1969

## PREFACE

This issue in the series of catalogs describing the television cloud photographs obtained by meteorological satellites includes material taken from both ESSA 3 and ESSA 5. It covers the period of October 1, 1967 thru December 31, 1967. The maps and listings generally follow the pattern established in the "Catalogue of Meteorological Satellite Data - TIROS I Television Cloud Photography," published as No. 5.31 in the Environmental Data Service Series Key to Meteorological Records Documentation. However, digitized cloud maps replace the manually constructed nephanalyses which had been used in previous catalogs. There are two maps for each day; the first polar stereographic projection in each set is for the Northern Hemisphere and the second for the Southern Hemisphere. These maps are arranged according to pass day.

Documentation Section  
National Environmental Satellite Center

## USING THE CATALOG

1. Scan the digitized cloud maps for areas of particular interest.
2. When a picture of interest is located, the film can be ordered by date from the National Weather Records Center, Asheville, N. C., at a cost of \$8.50 per day.
3. Information for a particular pass, such as start time, subsatellite point (the point where the local vertical through the satellite intersects the earth's surface), and track number, may be determined by using the tabulated listings preceding the digitized cloud maps.

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CATALOG OF METEOROLOGICAL SATELLITE DATA -  
ESSA 3 and ESSA 5 TELEVISION CLOUD PHOTOGRAPHY  
October 1, 1967 through December 31, 1967

The ESSA 3 meteorological satellite, launched on October 2, 1966 by the National Aeronautics and Space Administration, is the third Environmental Survey Satellite in the TIROS Operational (TOS) System. ESSA 3 was put into a nearly circular, sun-synchronous polar orbit, approximately 892 statute miles above the earth's surface with an apogee of 925 statute miles and a perigee of 859 statute miles. The orbit is inclined  $79^{\circ}$  (Retrograde) to the equatorial plane with a nodal period of 114.5 minutes which corresponds to slightly less than 13 circuits of the earth each day.

ESSA 3 is a TIROS type satellite in a "cartwheel" configuration which allows earth-oriented picture coverage. The spacecraft is spin-stabilized and magnetically torqued to a wheel attitude, so that the spin axis is normal to the plane of the orbit and the radially mounted cameras view the earth once during each spacecraft revolution about its axis.

The cameras in the ESSA 3 satellite are one inch diameter vidicons (television camera tube) of the Advanced Vidicon Camera System (AVCS) type. Each picture covers an area of approximately 4,000,000 square miles. One camera provides full global coverage, therefore, two cameras provide full system redundancy.

Each of the cameras can independently take pictures and store them for later playback to one of the Command-and-Data-Acquisition (CDA) stations which are located at Wallops Station near Chincoteague, Va., and Gilmore Creek, Fairbanks, Alaska.

Pictures, taken every 260 seconds, are usually obtained in sequences of twelve frames to a pass. Each frame is electronically gridded by computer with latitude and longitude lines and geographic outlines merged with the picture. An identification legend underneath each picture provides the following information: year, month, day, hour, minute and second of picture taking time; track and zone numbers; station initial; satellite number; mode; camera; latitude of a labeled grid intersection near the picture center; latitude spacing of grids in degrees; longitude of a labeled grid intersection near the picture center; longitude spacing of grids in degrees; pass number; frame number; and sun glint position. The picture, figure 1, is located in the area of track 4 (TABLE 1) zone 58 (not referenced), with the latitude and longitude point of the picture located at  $25^{\circ}\text{N}$  and  $95^{\circ}\text{W}$ . The grids are spaced  $5^{\circ}$  both in latitude and longitude and sun glint is shown in the picture at  $22^{\circ}\text{N}$  and  $99^{\circ}\text{W}$ .

For ESSA 3 the system of "TRACKS" is used to identify the general geographic areas over which picture sequences were taken. These tracks are listed in the ESSA 3 track table (TABLE 1) which appears in this catalog immediately following the tabulated listings. The track boundaries are parallel to the path followed by the subsatellite point during the daylight portion of each orbital pass. The width of each track is exactly equal to the amount the earth rotates between consecutive passes. Thus, in general, the subsatellite point makes one traverse along each track each day (from midnight to midnight, GMT). The track boundaries are fixed permanently for the life of ESSA 3, and are arbitrarily referenced to the point  $0^{\circ}$  latitude,  $0^{\circ}$  longitude, with track numbers increasing westward.

Since the ESSA 3 orbital period of 114.5 minutes is not an exact submultiple of 24 hours, the satellite starts 12 and 13 passes on alternate days. This results in track 13 being much narrower than the others and, thus, it is not traversed every day. There are also days on which one particular track is traversed just after GMT midnight, and again later the same day just before GMT midnight.

The ESSA 5 meteorological satellite, launched on April 20, 1967, has characteristic features similar to ESSA 3. When pictures from ESSA 5 more nearly fit the operational requirements for data they are combined with pictures from ESSA 3 in the digitized cloud maps.

ESSA 5, like ESSA 3, was put into a nearly circular polar orbit, approximately 892 statute miles above the earth's surface, with an apogee of 922 statute miles and a perigee

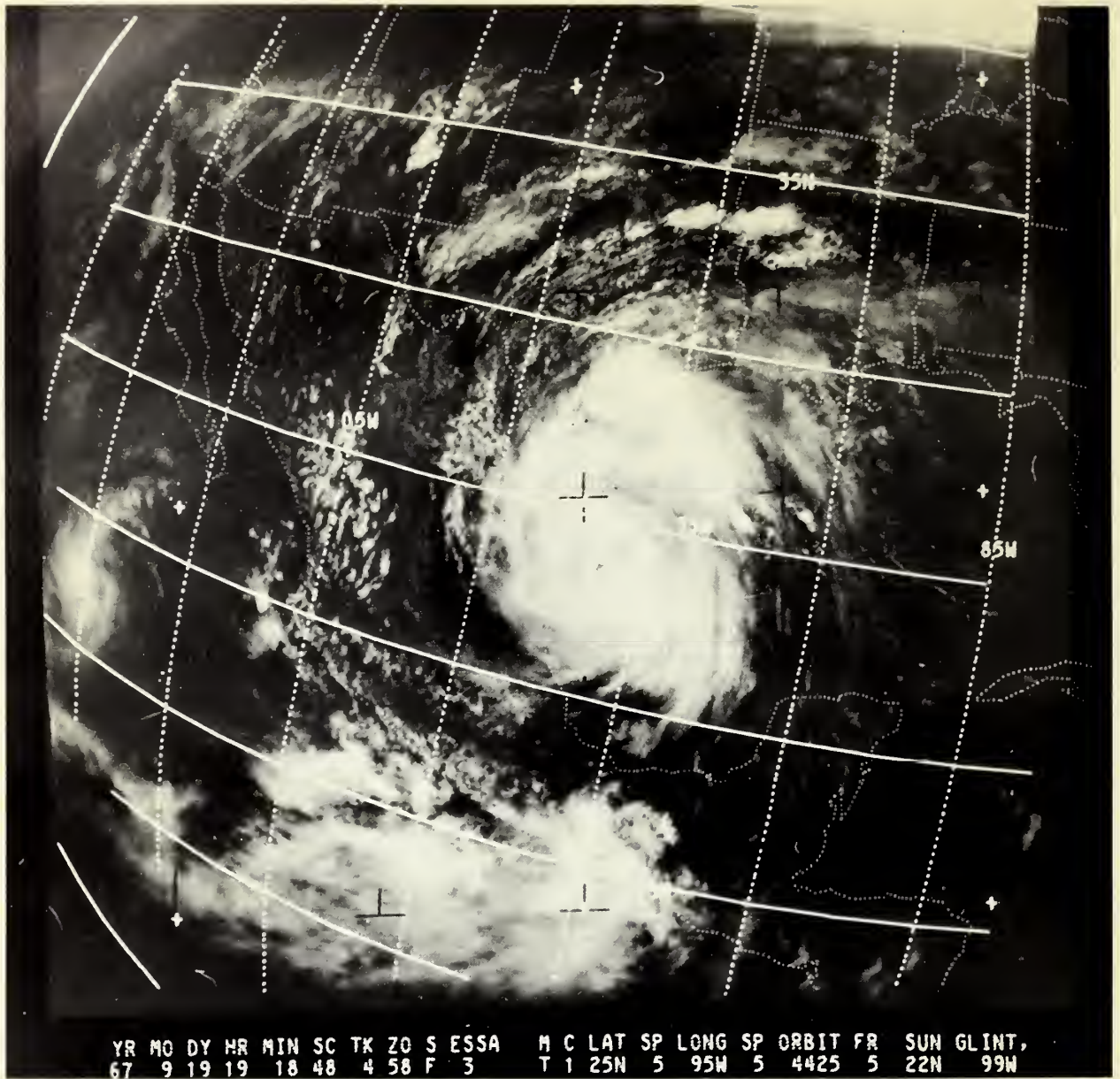


Figure 1 - Example of ESSA 3 Cloud Photography

ESSA 5 similar



of 861 statute miles. The orbit inclines  $78.42^{\circ}$  to the equatorial plane with an orbital period of 113.6 minutes which corresponds to 12.7 passes around the earth each day.

The cameras in the ESSA 5 satellite are of the same design as those in the ESSA 3 satellite. Picture coverage of the entire sunlit area of the earth is possible each day. Each camera can independently take pictures and store them on tape for later playback to a CDA station in the same manner as ESSA 3 photos.

Pictures, taken at 260 seconds, are in sequences of 6 or 12 frames to a pass, each frame being electronically gridded to show latitude, longitude and geographic outlines on the picture. The grids are generally spaced at  $5^{\circ}$  intervals of latitude and longitude. The identification legend underneath each picture supplies all pertinent information.

The "track" system of ESSA 5 is similar to that of ESSA 3 and track boundaries are fixed for the life of the satellite. They are used to identify the geographic areas over which picture sequences were taken. These tracks are listed in the ESSA 5 track table (TABLE 2) which immediately follows the ESSA 3 track table (TABLE 1).

Since the ESSA 5 orbital period of 113.6 minutes is not an exact multiple of 24 hours, the satellite starts 12 and 13 passes on alternate days. This results in track 13 being much narrower than the others and, thus, is not traversed every day. There also are days on which one particular track is traversed just after GMT midnight, and again later the same day just before GMT midnight.

On the film reels, picture sequences are grouped together by track number and assembled in chronological order. Track numbers are stamped on the film immediately preceding the sequence to which they apply.

The following pages of tabulated listings give descriptive information about the pictures obtained by ESSA 3 and ESSA 5. In the listings each picture sequence is described by one line, and the sequences are grouped together by date and track number. This is the order in which they appear on the film reel. The column headings and entries have the following meanings:

PASS: Orbital pass number on which the pictures were taken.  
On the digitized cloud maps in this catalog, these numbers appear beneath the date in the lower right corner of the page.

TRACK: Defines the geographic area which contains the path of the subsatellite point. The entries refer to TABLES 1 and 2.

C: Camera number indicated in the legend.

1 = Camera number one

2 = Camera number two

S: Command-and-Data-Acquisition (CDA) station which received the sequence.

W = Wallops Station, Va.

F = Fairbanks, Alaska

ALONG: Longitude of ascending node (equator crossing)

MODA: Month and day on which the pictures were taken.

HRMNSE: Time in hours, minutes and seconds of the first picture taken.

SUBSATELLITE POINT PICTURE LOCATION: Indicates the latitude in degrees of the subsatellite point for each of the twelve frames in the orbital pass sequence. First latitude column corresponds to picture frame No. 12.

The digitized cloud maps that appear in this catalog are prepared by a high speed digital computer. In this process the signals comprising the picture taken by the satellite are assigned numerical values to indicate the relative brightness of each element. These data are normalized brightness, earth-located and repositioned on standard map projection. Magnetic tapes are produced for input to a cathode ray tube film display device. These digitized cloud maps are constructed so that the overlap of day, 24 hours apart, is positioned in an area between 80 and 60 degrees East. On some days, the first pass of the mosaic day is the same as the last pass of the previous day to keep the 24 hour break in the required area. A detailed description of the procedures used to produce these digitized cloud maps is contained in reference 1; a condensed and edited version of this same article appears in reference 2.

In addition to the reduced hemispheric imagery used as a key in this catalog, fourteen additional computer mapped video products are also produced; eight polar stereographic octants and 6 Mercator segments for each day. The digitized cloud maps are the reduced resolution northern and southern polar hemispheric chips in which latitude and longitude lines are spaced at 10° intervals. In some instances, blank areas and mislocated clouds appear on the digitized cloud maps which are irregularities of the computer operation and should be disregarded. The date appears in the lower right corner of the page along with inclusive pass numbers for the day.

The basic ESSA 3 and ESSA 5 gridded picture master films are deposited at the National Weather Records Center (NWRC), Environmental Science Services Administration, Federal Building, Asheville, North Carolina 28801. Persons or institutions desiring copies may order them from the NWRC in the form of 35 mm. positive transparencies for projection or 35 mm. duplication negatives from which opaque copies can be made. These individual gridded pictures are ordered in daily groups (of about 150) at a cost of \$8.50. The fifty foot film strip for each daily group also includes 16 adjunct frames of the computer mapped imagery for that day. This computer mapped imagery is also available on separate 100 foot reels also at a cost of \$8.50 per reel with each reel containing information for 22 days. Apart from the 16 digital frames described above, a growing list of multi-day computer mapped products are being included. Starting October 1968, 5-day mean charts have been interspersed chronologically as they are available and 30-day mean charts produced on a 15-day overlapped basis also are included along with 90-day seasonal mean charts. From November 1967 to October 1968, these mean charts were produced on an experimental basis and are also available separately upon request from the NWRC.

All copies will be furnished with sprocket holes since the necessary film emulsion is available only in this form. It is not yet possible to furnish copies of individual frames or to provide enlargements or other picture formats. Available also from the NWRC, for the cost of reproduction, are reels of microfilmed nephanalysis charts for TIROS I thru ESSA 1.

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#### REFERENCES

1. Bristor, C. L., Callicott, W.M., and Bradford, R. E.: "Operational Processing of Satellite Cloud Pictures by Computer," Monthly Weather Review, 94(8), August 1966, pp. 515-527.
2. U.S. Department of Commerce, Environmental Science Services Administration, Environmental Data Service, "Catalog of Meteorological Satellite Data - ESSA 3 Television Cloud Photography, Part 2, January 1, 1967 to March 31, 1967." KMRD No. 5.313, Washington, D. C., 1967.

PASS	TRACK	C	S	ALON	MODA	HRMNS	SUB SATELLITE POINT PICTURE LOCATION															
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	
4566	6	2	W	170W	1001	001307	67S	55S	42S	29S	16S	2S	10N	23N	37N	50N	63N	74N				
4567	7	2	W	162E	1001	020749	67S	55S	42S	29S	15S	2S	10N	24N	37N	50N	63N	74N				
4568	8	2	W	133E	1001	040233	67S	54S	42S	28S	15S	2S	11N	24N	37N	50N	63N	74N				
4569	9	2	W	104E	1001	055721	66S	54S	41S	28S	15S	1S	11N	24N	38N	51N	64N	75N				
4570	10	2	W	76E	1001	075211	66S	53S	40S	27S	14S	1S	12N	25N	38N	52N	64N	75N				
4571	11	2	F	47E	1001	094705	65S	53S	40S	27S	13S	0N	12N	26N	39N	52N	65N	76N				
4572	12	2	F	18E	1001	114202	64S	52S	39S	26S	12S	0N	13N	27N	40N	53N	66N	76N				
4573	1	2	F	10W	1001	133642	64S	52S	39S	26S	13S	0N	13N	26N	40N	53N	65N	76N				
4574	2	2	F	39W	1001	153104	65S	53S	40S	27S	13S	0N	12N	26N	39N	52N	65N	75N				
4575	3	2	F	68W	1001	172530	65S	53S	40S	27S	14S	1S	12N	25N	38N	51N	64N	75N				
4576	4	2	F	96W	1001	191959	66S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N	75N				
4577	5	2	F	125W	1001	211432	66S	54S	41S	28S	15S	1S	11N	24N	38N	51N	63N	75N				
4578	6	2	F	154W	1001	230907	66S	54S	41S	28S	15S	2S	11N	24N	37N	51N	63N					
4579	7	2	W	178E	1002	010336	67S	55S	42S	29S	15S	2S	10N	24N	37N	50N	63N	74N				
4580	8	2	W	149E	1002	025816	67S	55S	42S	29S	15S	2S	10N	24N	37N	50N	63N	74N				
4581	9	2	W	120E	1002	045300	67S	54S	41S	28S	15S	2S	11N	24N	37N	51N	63N	75N				
4582	10	2	W	92E	1002	064747	66S	54S	41S	28S	15S	1S	11N	24N	38N	51N	64N	75N				
4583	11	2	F	63E	1002	084237	66S	53S	40S	27S	14S	1S	12N	25N	38N	52N	64N	75N				
4584	12	2	F	34E	1002	103730	65S	53S	40S	27S	13S	0N	12N	26N	39N	52N	65N	76N				
4585	13	2	F	6E	1002	123208	65S	53S	40S	27S	14S	0N	12N	25N	39N	52N	64N	75N				
4586	1	2	F	23W	1002	142630	66S	54S	41S	28S	14S	1S	11N	25N	38N	51N	64N	75N				
4587	2	2	F	52W	1002	162056	66S	54S	41S	28S	15S	2S	11N	24N	37N	50N	63N	74N				
4588	3	2	F	80W	1002	181525	67S	55S	42S	29S	16S	2S	10N	23N	37N	50N	63N	74N				
4589	4	2	F	109W	1002	200958	67S	55S	42S	29S	16S	3S	10N	23N	37N	50N	63N	74N				
4590	5	2	F	138W	1002	220433	67S	55S	42S	29S	16S	3S	10N	23N	36N	50N	62N					
4591	6	2	F	166W	1002	235903	68S	56S	43S	30S	16S	3S	9N	23N	36N	49N	62N					
4592	7	2	W	165E	1003	015344	68S	55S	43S	30S	16S	3S	9N	23N	36N	49N	62N	74N				
4593	8	2	W	136E	1003	034828	67S	55S	42S	29S	16S	3S	10N	23N	36N	50N	63N	74N				
4594	9	2	W	108E	1003	054315	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N	74N				
4595	10	2	W	79E	1003	073805	66S	54S	41S	28S	15S	2S	11N	24N	38N	51N	64N	75N				
4596	11	2	F	50E	1003	093259	66S	53S	41S	27S	14S	1S	12N	25N	38N	52N	64N	75N				
4597	12	2	F	22E	1003	112755	65S	53S	40S	27S	13S	0N	13N	26N	39N	53N	65N	76N				
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4599	2	2	F	36W	1003	151657	66S	53S	41S	28S	14S	1S	11N	25N	38N	51N	64N	75N				
4600	3	2	F	64W	1003	171123	66S	54S	41S	28S	15S	2S	11N	24N	37N	51N	63N	75N				
4601	4	2	F	93W	1003	190552	67S	55S	42S	29S	15S	2S	10N	24N	37N	50N	63N	74N				
4602	5	2	F	122W	1003	210025	67S	55S	42S	29S	16S	2S	10N	23N	37N	50N	63N	74N				
4603	6	2	F	150W	1003	225500	67S	55S	42S	29S	16S	3S	10N	23N	37N	50N	63N					
4604	7	2	W	179W	1004	004929	68S	56S	43S	30S	16S	3S	9N	23N	36N	49N	62N	74N				
4605	8	2	W	152E	1004	024409	68S	55S	43S	30S	16S	3S	9N	23N	36N	49N	62N	74N				
4606	9	2	W	124E	1004	043853	67S	55S	42S	29S	16S	3S	10N	23N	36N	50N	63N	74N				
4607	10	2	W	95E	1004	063340	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N	74N				
4608	11	2	F	66E	1004	082830	67S	54S	41S	28S	15S	2S	11N	24N	38N	51N	64N	75N				
4609	12	2	F	38E	1004	102323	66S	54S	41S	28S	14S	1S	12N	25N	38N	52N	64N	75N				
4610	13	2	F	9E	1004	121801	66S	54S	41S	28S	15S	1S	11N	24N	38N	51N	64N	75N				
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4615	5	2	F	134W	1004	215026	68S	56S	43S	30S	17S	4S	9N	22N	36N	49N	62N	73N				
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4617	7	2	W	168E	1005	013947	68S	56S	43S	30S	17S	3S	9N	22N	36N	49N	62N	73N				
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4619	9	2	W	111E	1005	052921	67S	55S	42S	29S	16S	2S	10N	23N	37N	50N	63N	74N				
4620	10	2	W	82E	1005	071952	77S	67S	54S	42S	28S	15S	2S	11N	24N	37N	51N	63N				
4621	11	2	F	54E	1005	091447	76S	66S	54S	41S	28S	14S	1S	11N	25N	38N	52N	64N				
4622	12	2	F	25E	1005	110946	76S	65S	53S	40S	27S	13S	0N	13N	26N	39N	53N	65N				
4623	1	2	F	4W	1005	130427	76S	65S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N				
4624	2	2	F	32W	1005	145850	76S	66S	53S	41S	28S	14S	1S	11N	25N	38N	51N	64N				
4625	3	2	F	61W	1005	165316	76S	66S	54S	41S	28S	15S	2S	11N	24N	37N	51N	63N				
4626	4	2	F	90W	1005	184745	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	50N	63N				
4627	5	2	F	118W	1005	204217	77S	67S	55S	42S	29S	16S	2S	10N	23N	37N	50N	63N				
4628	6	2	F	147W	1005	223653	77S	67S	55S	42S	29S	16S	2S	10N	23N	37N	50N	63N				
4629	7	2	W	176W	1006	003130	77S	67S	55S	42S	29S	16S	3S	10N	23N	37N	50N	63N				
4630	8	2	W	156E	1006	022613	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N				
4631	9	2	W	127E	1006	042058	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	50N	63N				
4632	10	2	W	98E	1006	061547	76S	66S	54S	41S	28S	15S	1S	11N	24N	38N	51N	64N				
4633	11	2	W	70E	1006	081039	76S	66S	53S	40S	27S	14S	1S	12N	25N	39N	52N	65N				
4634	12	2	F	41E	1006	100534	76S	65S	53S	40S	26S	13S	0N	13N	26N	39N	53N	65N				
4635	13	2	F	12E	1006	120033	75S	64S	52S	39S	25S	12S	0N	14N	27N	41N	54N	66N				
4636	1	2	F	16W	1006	135513	75S	64S	52S	39S	26S	12S	0N	13N	27N	40N	53N	66N				
4637	2	2	F	45W	1006	154934	75S	65S	53S	40S	27S	13S	0									





PASS	TRACK	C	S	ALON	MODA	HRMNSL	SUB SATELLITE POINT PICTURE LOCATION															
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	
4716	6	2	F	150W	1012	224618	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N				
4717	7	2	W	178W	1013	004058	76S	66S	54S	41S	28S	14S	1S	11N	25N	38N	51N	64N				
4718	8	2	W	153E	1013	023539	76S	66S	54S	41S	28S	14S	1S	12N	25N	38N	52N	64N				
4719	9	2	W	124E	1013	043023	76S	66S	53S	40S	27S	14S	1S	12N	25N	39N	52N	65N				
4720	10	2	W	96E	1013	062510	76S	65S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N				
4721	11	2	F	67E	1013	082000	75S	65S	52S	39S	26S	13S	0N	13N	26N	40N	53N	66N				
4722	12	2	F	38E	1013	101453	75S	64S	52S	39S	26S	12S	0N	14N	27N	41N	54N	66N				
4723	13	2	F	10E	1013	120932	75S	64S	52S	39S	26S	13S	0N	13N	27N	40N	53N	66N				
4724	1	2	F	19W	1013	140352	76S	65S	53S	40S	27S	13S	0N	12N	26N	39N	52N	65N				
4725	2	2	F	48W	1013	155816	76S	66S	53S	41S	27S	14S	1S	12N	25N	38N	52N	64N				
4726	3	2	F	76W	1013	175243	76S	66S	54S	41S	28S	15S	1S	11N	24N	38N	51N	64N				
4727	4	2	F	105W	1013	194712	77S	67S	54S	42S	29S	15S	2S	11N	24N	37N	51N	63N				
4728	5	2	F	134W	1013	214145	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N				
4729	6	2	F	162W	1013	233624	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	50N	63N				
4730	7	2	W	169E	1014	013104	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	51N	63N				
4731	8	2	W	140E	1014	032547	77S	67S	54S	42S	28S	15S	2S	11N	24N	38N	51N	64N				
4732	9	2	W	112E	1014	052033	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N				
4733	10	2	W	83E	1014	071522	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N				
4734	11	2	F	54E	1014	091014	76S	65S	53S	40S	27S	13S	0N	12N	26N	39N	53N	65N				
4735	12	2	F	26E	1014	110510	75S	65S	52S	39S	26S	13S	0N	13N	27N	40N	53N	66N				
4736	1	2	F	3W	1014	125948	75S	65S	52S	39S	26S	13S	0N	13N	26N	40N	53N	65N				
4737	2	2	F	32W	1014	145410	76S	65S	53S	40S	27S	14S	0N	12N	25N	39N	52N	65N				
4738	3	2	F	60W	1014	164835	76S	66S	54S	41S	28S	14S	1S	11N	25N	38N	51N	64N				
4739	4	2	F	89W	1014	184303	76S	67S	54S	41S	28S	15S	2S	11N	24N	38N	51N	64N				
4740	5	2	F	118W	1014	203734	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	50N	63N				
4741	6	2	F	146W	1014	223208	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N				
4742	7	2	W	175W	1015	002645	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N				
4743	8	2	W	156E	1015	022125	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N				
4744	9	2	W	128E	1015	041608	77S	67S	55S	42S	29S	15S	2S	11N	24N	37N	51N	63N				
4745	10	2	W	99E	1015	061055	77S	67S	54S	41S	28S	15S	1S	11N	24N	38N	51N	64N				
4746	11	2	W	70E	1015	080544	76S	66S	54S	41S	28S	14S	1S	12N	25N	38N	52N	64N				
4747	12	2	F	42E	1015	100037	76S	65S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N				
4748	13	2	F	13E	1015	115533	75S	65S	52S	39S	26S	13S	0N	13N	27N	40N	53N	66N				
4749	1	2	F	16W	1015	135012	75S	65S	52S	39S	26S	13S	0N	13N	26N	40N	53N	65N				
4750	2	2	F	44W	1015	154434	76S	65S	53S	40S	27S	14S	0N	12N	25N	39N	52N	65N				
4751	3	2	F	73W	1015	173859	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N				
4752	4	2	F	102W	1015	193327	77S	67S	54S	41S	28S	15S	2S	11N	24N	38N	51N	64N				
4753	5	2	F	130W	1015	212758	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	50N	63N				
4754	6	2	F	159W	1015	232232	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N				
4755	7	2	W	172E	1016	011709	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N				
4756	8	2	W	144E	1016	031149	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N				
4757	9	2	W	115E	1016	050632	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	51N	63N				
4758	10	2	W	86E	1016	070119	77S	67S	54S	41S	28S	15S	2S	11N	24N	38N	51N	64N				
4759	11	2	F	58E	1016	085608	76S	66S	54S	41S	28S	14S	1S	12N	25N	38N	52N	64N				
4760	12	2	F	29E	1016	105101	76S	65S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N				
4761	1	2	F	0W	1016	124539	76S	66S	53S	40S	27S	14S	1S	12N	25N	39N	52N	65N				
4762	2	2	F	28W	1016	144001	76S	66S	54S	41S	28S	15S	1S	11N	24N	38N	51N	64N				
4763	3	2	F	57W	1016	163425	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N				
4764	4	2	F	86W	1016	182853	77S	67S	55S	42S	29S	16S	3S	10N	23N	37N	50N	63N				
4765	5	2	F	114W	1016	202324	77S	68S	56S	43S	30S	16S	3S	9N	23N	36N	49N	62N				
4766	6	2	F	143W	1016	221758	77S	68S	56S	43S	30S	17S	3S	9N	23N	36N	49N	62N				
4767	7	2	F	172W	1017	001234	77S	68S	56S	43S	30S	17S	3S	9N	23N	36N	49N	62N				
4768	8	2	W	160E	1017	020714	77S	68S	56S	43S	30S	17S	3S	9N	23N	36N	49N	62N				
4769	9	2	W	131E	1017	040157	77S	68S	56S	43S	30S	16S	3S	9N	23N	36N	50N	62N				
4770	10	2	W	102E	1017	055644	77S	68S	55S	42S	29S	16S	3S	10N	23N	37N	50N	63N				
4771	11	2	W	74E	1017	075133	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	51N	63N				
4772	12	2	F	45E	1017	094626	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N				
4773	13	2	F	16E	1017	114122	76S	66S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N				
4774	1	2	F	12W	1017	133602	76S	66S	53S	41S	27S	14S	1S	12N	25N	39N	52N	64N				
4775	2	2	F	41W	1017	153023	76S	66S	54S	41S	28S	15S	2S	11N	24N	38N	51N	64N				
4776	3	2	F	70W	1017	172448	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N				
4777	4	2	F	98W	1017	191916	77S	68S	55S	43S	29S	16S	3S	10N	23N	36N	50N	63N				
4778	5	2	F	127W	1017	211347	77S	68S	56S	43S	30S	17S	3S	9N	23N	36N	49N	62N				
4779	6	2	F	156W	1017	230821	77S	68S	56S	43S	30S	17S	3S	9N	23N	36N	49N	62N				
4780	7	2	W	176E	1018	010304	77S	68S	56S	43S	30S	17S	3S	9N	23N	36N	50N	62N				
4781	8	2	W	147E	1018	025745	77S	68S	56S	43S	30S	16S	3S	9N	23N	36N	50N	63N				
4782	9	2	W	118E	1018	045230	77S	68S	55S	43S	29S	16S	3S	10N	23N	37N	50N	63N				
4783	10	2	W	90E	1018	064717	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	51N	63N				
4784	11	2	W	61E	1018	084208	77S	67S	54S	41S	28S	15S	2S	11N	24N	38N	51N	64N				
4785	12	2	F	32E	1018	103702	76S	66S	54S	41S	27S	14S	1S	12N	25N	39N	52N	65N				
4786	13	2	F	4E	1018	123141	76S	66S	54S	41S	28S	14S	1S	11N	25N	38N	51N	64N				
4787	1	2	F	25W	1018	142604	77S	67S	55S													



PASS	TRACK	C	S	ALON	MODA	HRMNSL	SUB SATELLITE POINT PICTURE LOCATION													
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT		
4791	5	2	F	140W	1018	220406	77S	68S	56S	43S	30S	17S	3S	9N	23N	36N	49N	62N		
4792	6	2	F	168W	1018	235845	77S	68S	56S	43S	30S	17S	3S	9N	23N	36N	49N	62N		
4793	7	2	W	163E	1019	015326	77S	68S	56S	43S	30S	17S	3S	9N	23N	36N	49N	62N		
4794	8	2	W	134E	1019	034811	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N		
4795	9	2	W	106E	1019	054259	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N		
4796	10	2	W	77E	1019	073750	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N		
4797	11	2	F	48E	1019	093244	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N		
4798	12	2	F	19E	1019	112741	77S	67S	54S	40S	27S	13S	0N	13N	26N	40N	53N	66N		
4799	1	2	F	9W	1019	132223	76S	65S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N		
4800	2	2	F	38W	1019	151646	76S	66S	54S	41S	28S	14S	1S	11N	25N	38N	52N	64N		
4801	3	2	F	66W	1019	171953	54S	41S	28S	15S	2S	11N	24N	38N	51N	64N				
4802	4	2	F	95W	1019	191003	67S	55S	42S	29S	15S	2S	11N	24N	37N	51N	63N			
4803	5	2	F	124W	1019	210016	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N		
4804	6	2	F	152W	1019	225913	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N	1S		
4805	7	2	W	179E	1020	004933	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N		
4806	8	2	W	150E	1020	024415	77S	67S	55S	42S	29S	15S	2S	11N	24N	37N	51N	64N		
4807	9	2	W	122E	1020	043901	77S	67S	54S	42S	28S	15S	2S	11N	24N	38N	51N	64N		
4808	10	2	W	93E	1020	063350	76S	66S	54S	41S	28S	14S	1S	11N	25N	38N	52N	64N		
4809	11	2	F	64E	1020	082842	76S	66S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N		
4810	12	2	F	36E	1020	102337	75S	65S	52S	40S	26S	13S	0N	13N	27N	40N	53N	66N		
4811	13	2	F	7E	1020	121818	75S	65S	53S	40S	26S	13S	0N	13N	26N	40N	53N	65N		
4812	1	2	F	22W	1020	141240	76S	66S	53S	40S	27S	14S	1S	12N	25N	39N	52N	65N		
4813	2	2	F	50W	1020	160706	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N		
4814	3	2	F	79W	1020	180135	77S	67S	54S	42S	28S	15S	2S	11N	24N	38N	51N	64N		
4815	4	2	F	108W	1020	195607	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	51N	63N		
4816	5	2	F	136W	1020	215042	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	51N	63N		
4817	6	2	F	165W	1020	234525	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N			
4818	7	2	W	166E	1021	014000	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	51N	63N		
4819	8	2	W	138E	1021	033445	77S	67S	55S	42S	28S	15S	2S	11N	24N	38N	51N	64N		
4820	9	2	W	109E	1021	052923	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N		
4821	10	2	W	80E	1021	072414	76S	66S	54S	41S	28S	14S	1S	11N	25N	38N	52N	65N		
4822	11	2	F	52E	1021	091908	76S	66S	53S	40S	27S	14S	0N	12N	26N	39N	53N	65N		
4823	12	2	F	23E	1021	111405	75S	65S	52S	39S	26S	13S	0N	13N	27N	40N	54N	66N		
4824	1	2	F	6W	1021	130846	75S	65S	52S	39S	26S	13S	0N	13N	26N	40N	53N	66N		
4825	2	2	F	34W	1021	150307	76S	66S	53S	40S	27S	14S	0N	12N	25N	39N	52N	65N		
4826	3	2	F	63W	1021	165732	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N		
4827	4	2	F	92W	1021	185200	77S	67S	54S	42S	28S	15S	2S	11N	24N	38N	51N	64N		
4828	5	2	F	120W	1021	204631	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	51N	63N		
4829	6	2	F	149W	1021	224105	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	50N	63N		
4830	7	2	W	178W	1022	003549	77S	67S	55S	42S	29S	15S	2S	11N	24N	37N	51N	64N		
4831	8	2	W	154E	1022	023030	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N		
4832	9	2	W	125E	1022	042514	77S	67S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N		
4833	10	2	W	96E	1022	062002	76S	66S	54S	41S	28S	14S	1S	12N	25N	38N	52N	65N		
4834	11	2	F	68E	1022	081452	76S	66S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N		
4835	12	2	F	39E	1022	100946	76S	65S	53S	40S	26S	13S	0N	13N	27N	40N	53N	66N		
4836	13	2	F	10E	1022	120425	76S	65S	53S	40S	27S	13S	0N	13N	26N	39N	53N	65N		
4837	1	2	F	18W	1022	135849	76S	66S	53S	41S	27S	14S	1S	12N	25N	39N	52N	65N		
4838	2	2	F	47W	1022	155316	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N		
4839	3	2	F	76W	1022	174746	77S	67S	54S	42S	28S	15S	2S	11N	24N	38N	51N	64N		
4840	4	2	F	104W	1022	194219	77S	67S	55S	42S	29S	15S	2S	11N	24N	37N	51N	64N		
4841	5	2	F	133W	1022	213655	77S	67S	55S	42S	29S	15S	2S	10N	24N	37N	51N	63N		
4842	6	2	F	162W	1022	233135	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N		
4843	7	2	W	170E	1023	012617	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N		
4844	8	2	W	141E	1023	032103	77S	67S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N		
4845	9	2	W	113E	1023	051552	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N		
4846	10	2	W	84E	1023	071044	76S	65S	53S	40S	27S	14S	0N	12N	26N	39N	53N	65N		
4847	11	2	F	55E	1023	090539	75S	65S	52S	39S	26S	13S	0N	13N	27N	40N	54N	66N		
4848	12	2	F	27E	1023	110038	75S	64S	51S	38S	25S	12S	1N	15N	28N	41N	55N	67N		
4849	1	2	F	2W	1023	125519	75S	64S	51S	38S	25S	12S	1N	14N	28N	41N	54N	67N		
4850	2	2	F	31W	1023	144940	75S	65S	52S	39S	26S	13S	0N	13N	27N	40N	53N	66N		
4851	3	2	F	59W	1023	164405	76S	65S	53S	40S	27S	13S	0N	13N	26N	39N	53N	65N		
4852	4	2	F	88W	1023	183833	76S	66S	53S	40S	27S	14S	0N	12N	25N	39N	52N	65N		
4853	5	2	F	117W	1023	203304	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N		
4854	6	2	F	145W	1023	222738	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	52N	64N		
4855	7	2	W	174W	1024	002219	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N		
4856	8	2	W	157E	1024	021700	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N		
4857	9	2	W	129E	1024	041145														

PASS	TRACK	C	S	ALON	MODA	HRMNSL	SUB SATELLITE POINT PICTURE LOCATION															
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	
4866	5	2	F	129W	1024	212314	77S	67S	54S	42S	28S	15S	2S	11N	24N	38N	51N	64N				
4867	6	2	F	150W	1024	231751	77S	67S	55S	42S	28S	15S	2S	11N	24N	38N	51N	64N				
4868	7	2	V	173E	1025	011235	77S	67S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N				
4869	8	2	V	145E	1025	030719	76S	66S	54S	41S	28S	14S	1S	12N	25N	38N	52N	65N				
4870	9	2	V	116E	1025	050206	76S	66S	54S	41S	27S	14S	1S	12N	25N	39N	52N	65N				
4871	10	2	V	87E	1025	065656	76S	65S	53S	40S	27S	13S	0N	13N	26N	40N	53N	66N				
4872	11	2	F	59E	1025	085150	75S	65S	52S	39S	26S	13S	0N	13N	27N	40N	54N	66N				
4873	12	2	F	30E	1025	104646	75S	64S	51S	38S	25S	12S	1N	14N	28N	41N	55N	67N				
4874	13	2	F	1E	1025	124127	75S	64S	51S	39S	25S	12S	0N	14N	27N	41N	54N	67N				
4875	1	2	F	27W	1025	143548	75S	65S	52S	39S	26S	13S	0N	13N	27N	40N	53N	66N				
4876	2	2	F	56W	1025	163013	76S	65S	53S	40S	27S	14S	0N	12N	26N	39N	53N	65N				
4877	3	2	F	85W	1025	182441	76S	66S	54S	41S	27S	14S	1S	12N	25N	39N	52N	65N				
4878	4	2	F	113W	1025	201912	76S	66S	54S	41S	28S	14S	1S	11N	25N	38N	52N	64N				
4879	5	2	F	142W	1025	221346	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N				
4880	6	2	V	171W	1026	000824	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	52N	64N				
4881	7	2	V	161E	1026	020304	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	52N	64N				
4882	8	2	V	132E	1026	035748	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N				
4883	9	2	V	103E	1026	055235	76S	66S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N				
4884	10	2	V	75E	1026	074724	76S	65S	53S	40S	27S	13S	0N	13N	26N	40N	53N	66N				
4885	11	2	F	46E	1026	094217	75S	65S	52S	39S	26S	13S	0N	14N	27N	41N	54N	66N				
4886	12	2	F	17E	1026	113655	75S	65S	52S	39S	26S	13S	0N	13N	26N	40N	53N	66N				
4887	1	2	F	11W	1026	133117	76S	66S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N				
4888	2	2	F	40W	1026	152541	76S	66S	54S	41S	28S	14S	1S	11N	25N	38N	52N	64N				
4889	3	2	F	69W	1026	172009	77S	67S	54S	42S	28S	15S	2S	11N	24N	38N	51N	64N				
4890	4	2	F	97W	1026	191440	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N				
4891	5	2	F	126W	1026	210914	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	51N	63N				
4892	6	2	F	155W	1026	230352	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	51N	63N				
4893	7	2	V	177E	1027	005838	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N				
4894	8	2	V	148E	1027	025323	77S	67S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N				
4895	9	2	V	119E	1027	044810	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N				
4896	10	2	V	91E	1027	064301	76S	66S	53S	40S	27S	14S	0N	12N	26N	39N	53N	65N				
4897	11	2	F	62E	1027	083755	76S	65S	53S	40S	26S	13S	0N	13N	27N	40N	53N	66N				
4898	12	2	F	33E	1027	103252	75S	64S	52S	39S	25S	12S	1N	14N	28N	41N	54N	67N				
4899	13	2	F	5E	1027	122732	75S	64S	52S	39S	26S	12S	0N	14N	27N	41N	54N	66N				
4900	1	2	F	24W	1027	142155	76S	65S	53S	40S	26S	13S	0N	13N	26N	40N	53N	66N				
4901	2	2	F	53W	1027	161621	76S	66S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N				
4902	3	2	F	81W	1027	181050	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N				
4903	4	2	F	110W	1027	200522	76S	66S	54S	41S	28S	14S	1S	11N	25N	38N	52N	64N				
4904	5	2	F	139W	1027	215957	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N	52N	64N				
4905	6	2	F	167W	1027	235433	77S	67S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N				
4906	7	2	V	164E	1028	014914	77S	66S	54S	41S	28S	15S	1S	11N	25N	38N	52N	64N				
4907	8	2	V	135E	1028	034358	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N				
4908	9	2	V	106E	1028	053846	77S	67S	55S	42S	28S	15S	2S	12N	26N	39N	52N	66N				
4909	10	2	V	78E	1028	073336	76S	65S	53S	40S	27S	13S	0N	13N	26N	40N	53N	66N				
4910	11	2	F	49E	1028	092830	75S	65S	52S	39S	26S	12S	0N	14N	27N	41N	54N	67N				
4911	12	2	F	21E	1028	112308	75S	65S	52S	39S	26S	13S	0N	13N	27N	40N	53N	66N				
4912	1	2	F	8W	1028	131730	76S	65S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N				
4913	2	2	F	37W	1028	151154	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N				
4914	3	2	F	65W	1028	170622	77S	67S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N				
4915	4	2	F	94W	1028	190053	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N				
4916	5	2	F	123W	1028	205527	77S	67S	55S	42S	29S	15S	2S	11N	24N	37N	51N	64N				
4917	6	2	F	151W	1028	225005	77S	67S	55S	42S	29S	15S	2S	11N	24N	37N	51N	64N				
4918	7	2	V	180W	1029	004444	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N				
4919	8	2	V	151E	1029	023928	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N				
4920	9	2	V	123E	1029	043415	77S	67S	54S	41S	28S	15S	1S	11N	25N	38N	52N	64N				
4921	10	2	V	94E	1029	062905	76S	66S	54S	41S	28S	14S	1S	12N	26N	39N	52N	65N				
4922	11	2	V	65E	1029	082358	76S	65S	53S	40S	27S	13S	0N	13N	26N	40N	53N	66N				
4923	12	2	F	37E	1029	101854	75S	65S	52S	39S	26S	12S	0N	14N	27N	41N	54N	67N				
4924	13	2	F	8E	1029	121333	75S	65S	52S	39S	26S	13S	0N	13N	27N	40N	53N	66N				
4925	1	2	F	21W	1029	140755	76S	66S	53S	40S	27S	14S	0N	12N	26N	39N	52N	65N				
4926	2	2	F	49W	1029	160219	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N				
4927	3	2	F	78W	1029	175647	77S	67S	54S	41S	28S	15S	1S	11N	25N	38N	51N	64N				
4928	4	2	F	107W	1029	195118	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N				
4929	5	2	F	135W	1029	214553	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N				
4930	6	2	F	164W	1029	234028	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N	51N	64N				
4931	7	2	V	167E	1030	013508	77S	67S	55S	42S	29S	16S	2S	11N	24N	38N	51N	64N				
4932	8	2	V	139E	1030	032951	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N				
4933	9	2	V	110E	1030	052438	77S	67S	54S	41S	28S	15S	1S	11N	25N	38N	52N	64N				
4934	10	2	V	81E	1030	071927	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N				
4935	11	2	F	53E	1030	091420	76S	65S	53S	40S	27S	13S	0N	13N	26N	40N	53N	66N				
4936	12	2	F	24E	1030	110916	75S	65S	52S	39S	26S	12S	0N	14N	27N	41N	54N	67N				
4937	1	2	F	5W	1030	130355	75S	65S	52S	39S	26S	13S										



PASS	TRACK	C	S	ALON	MOJA	HRMNSL	SUB SATELLITE POINT PICTURE LOCATION									
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT
4941	5	2	F	119W	1030	204140	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
4942	6	2	F	148W	1030	223614	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
4943	7	2	W	177W	1031	003052	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
4944	8	2	W	155E	1031	022533	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
4945	9	2	W	126E	1031	042017	77S	67S	55S	42S	20S	15S	2S	11N	25N	38N
4946	10	2	W	97E	1031	061504	77S	67S	54S	41S	20S	15S	1S	11N	25N	39N
4947	11	2	F	69E	1031	080954	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N
4948	12	2	F	40E	1031	100447	76S	65S	53S	40S	27S	13S	0N	13N	26N	40N
4949	13	2	F	11E	1031	115943	75S	65S	52S	39S	26S	12S	0N	14N	27N	41N
4950	1	2	F	17W	1031	135422	75S	65S	52S	39S	26S	13S	0N	13N	27N	40N
4951	2	2	F	46W	1031	154844	76S	65S	53S	40S	27S	13S	0N	13N	26N	39N
4952	3	2	F	75W	1031	174309	76S	66S	54S	41S	20S	14S	1S	12N	25N	39N
4953	4	2	F	103W	1031	193737	77S	67S	54S	41S	20S	15S	1S	11N	25N	38N
4954	5	2	F	132W	1031	213208	77S	67S	55S	42S	20S	15S	2S	11N	24N	38N
4955	6	2	F	161W	1031	232639	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
4956	7	2	W	171E	1101	012117	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
4957	8	2	W	142E	1101	031557	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
4958	9	2	W	113E	1101	051041	77S	67S	55S	42S	20S	15S	2S	11N	25N	38N
4959	10	2	W	85E	1101	070527	77S	67S	54S	41S	20S	15S	1S	11N	25N	38N
4960	11	2	F	56E	1101	090017	76S	66S	54S	41S	27S	14S	1S	12N	26N	39N
4961	12	2	F	27E	1101	105510	76S	65S	53S	40S	27S	13S	0N	13N	26N	40N
4962	1	2	F	1W	1101	125006	75S	65S	52S	39S	26S	12S	0N	14N	27N	41N
4963	2	2	F	30W	1101	144443	75S	65S	52S	39S	26S	13S	0N	13N	27N	40N
4964	3	2	F	59W	1101	163905	76S	66S	53S	40S	27S	14S	0N	12N	26N	39N
4965	4	2	F	87W	1101	183331	76S	66S	54S	41S	20S	14S	1S	12N	25N	39N
4966	5	2	F	116W	1101	202759	77S	67S	54S	41S	20S	15S	1S	11N	25N	38N
4967	6	2	F	145W	1101	222230	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
4968	7	2	W	173W	1102	001701	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N
4969	8	2	W	158E	1102	021138	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N
4970	9	2	W	129E	1102	040618	77S	67S	55S	42S	29S	16S	2S	10N	24N	38N
4971	10	2	W	101E	1102	060102	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
4972	11	2	W	72E	1102	075548	77S	67S	55S	42S	20S	15S	1S	11N	25N	38N
4973	12	2	F	43E	1102	095038	76S	66S	54S	41S	20S	14S	1S	12N	25N	39N
4974	13	2	F	15E	1102	114531	76S	66S	53S	40S	27S	13S	0N	13N	26N	40N
4975	1	2	F	14W	1102	134007	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N
4976	2	2	F	43W	1102	153428	77S	67S	54S	41S	20S	15S	1S	11N	25N	38N
4977	3	2	F	71W	1102	172852	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N
4978	4	2	F	100W	1102	192320	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
4979	5	2	F	129W	1102	211751	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
4980	6	2	F	157W	1102	231224	78S	68S	56S	43S	30S	17S	3S	9N	23N	36N
4981	7	2	W	174E	1103	010703	78S	68S	56S	43S	30S	17S	3S	9N	23N	36N
4982	8	2	W	145E	1103	030142	78S	68S	56S	43S	30S	17S	3S	9N	23N	36N
4983	9	2	W	117E	1103	045625	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
4984	10	2	W	88E	1103	065111	77S	68S	56S	43S	29S	16S	3S	10N	24N	37N
4985	11	2	F	59E	1103	084600	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
4986	12	2	F	31E	1103	104053	77S	67S	54S	41S	20S	15S	1S	11N	25N	38N
4987	13	2	F	2E	1103	123548	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N
4988	1	2	F	27W	1103	143027	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N
4989	2	2	F	55W	1103	162451	77S	67S	54S	42S	28S	15S	1S	11N	25N	38N
4990	3	2	F	84W	1103	181917	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N
4991	4	2	F	113W	1103	201347	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N
4992	5	2	F	141W	1103	220820	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
4993	6	2	W	170W	1104	000243	78S	69S	57S	44S	30S	17S	4S	9N	23N	36N
4994	7	2	W	161E	1104	015721	78S	69S	57S	44S	30S	17S	4S	9N	23N	36N
4995	8	2	W	133E	1104	035201	78S	69S	56S	44S	30S	17S	3S	9N	23N	36N
4996	9	2	W	104E	1104	054645	78S	68S	56S	43S	30S	17S	3S	9N	23N	36N
4997	10	2	W	75E	1104	074132	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
4998	11	2	F	47E	1104	093622	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N
4999	12	2	F	18E	1104	113116	77S	67S	55S	42S	20S	15S	1S	11N	25N	38N
5000	1	2	F	11W	1104	132612	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N
5001	2	2	F	39W	1104	152051	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N
5002	3	2	F	68W	1104	171515	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N
5003	4	2	F	97W	1104	190942	77S	67S	55S	42S	29S	16S	2S	11N	24N	37N
5004	5	2	F	125W	1104	210412	77S	68S	55S	43S	29S	16S	2S	10N	24N	37N
5005	6	2	F	154W	1104	225845	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5006	7	2	W	177E	1105	005313	78S	68S	56S	43S	30S	17S	3S	9N	23N	36N
5007	8	2	W	149E	1105	024751	78S	68S	56S	43S	30S	17S	3S	9N	23N	36N
5008	9	2	W	120E	1105	044233	78S	68S	56S	43S	30S	17S	3S	10N	23N	37N
5009	10	2	W	91E	1105	063718	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5010	11	2	F	63E	1105	083205	77S	68S	55S	42S	29S	16S	2S	10N	24N	37N
5011	12	2	F	34E	1105	102656	77S	67S	55S	42S	29S	15S	2S	11N	25N	38N
5012	13	2	F	5E	1105	122150	77S	66S	54S	41S	28S	14S	1S	12N	25N	39N
5013	1	2	F	23W	1105	141630	76S	66S	54S	41S	28S	15S	1S	11N	25N	38N
5014	2	2	F	52W	1105	161052	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
5015	3	2	F	81W	1105	180518	77S	68S	56S	43S	29S	16S	3S	10N	24N	37N



PASS	TRACK	C	S	ALON	MODA	HRMNSL	SUB SATELLITE POINT PICTURE LOCATION									
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT
5016	4	2	F	109W	1105	195947	77S	68S	56S	43S	30S	17S	3S	10N	23N	37N
5017	5	2	F	138W	1105	215419	78S	69S	56S	43S	30S	17S	3S	9N	23N	36N
5018	6	2	W	167W	1105	234900	78S	68S	56S	43S	30S	17S	3S	9N	23N	36N
5019	7	2	W	165E	1106	014339	78S	68S	56S	43S	30S	17S	3S	9N	23N	36N
5020	8	2	W	136E	1106	033822	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5021	9	2	W	107E	1106	053308	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N
5022	10	2	W	79E	1106	072757	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
5023	11	2	F	50E	1106	092250	77S	67S	54S	41S	28S	15S	1S	11N	25N	39N
5024	12	2	F	21E	1106	111745	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N
5025	1	2	F	7W	1106	131224	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N
5026	2	2	F	36W	1106	150647	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N
5027	3	2	F	65W	1106	170112	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N
5028	4	2	F	93W	1106	185541	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5029	5	2	F	122W	1106	205014	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5030	6	2	F	151W	1106	224449	77S	68S	56S	43S	30S	17S	3S	10N	23N	37N
5031	7	2	W	179W	1107	003921	78S	69S	56S	44S	30S	17S	3S	9N	23N	36N
5032	8	2	W	152E	1107	023401	78S	69S	56S	43S	30S	17S	3S	9N	23N	36N
5033	9	2	W	123E	1107	042845	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5034	10	2	W	95E	1107	062332	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N
5035	11	2	W	66E	1107	081823	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
5036	12	2	F	37E	1107	101316	78S	68S	55S	42S	29S	15S	2S	12N	25N	38N
5037	13	2	F	8E	1107	120754	78S	68S	55S	42S	29S	14S	3S	11N	25N	38N
5038	1	2	F	20W	1107	140216	77S	68S	55S	42S	29S	16S	2S	10N	24N	37N
5039	2	2	F	49W	1107	155642	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5040	3	2	F	77W	1107	175111	78S	69S	56S	44S	30S	17S	3S	9N	23N	36N
5041	4	2	F	106W	1107	194543	78S	69S	57S	44S	31S	17S	4S	9N	22N	36N
5042	5	2	F	135W	1107	214019	78S	69S	57S	44S	31S	17S	4S	9N	22N	36N
5043	6	2	F	163W	1107	233451	78S	69S	57S	44S	31S	18S	4S	8N	22N	35N
5044	7	2	W	168E	1108	012931	78S	69S	57S	44S	31S	18S	4S	9N	22N	36N
5045	8	2	W	139E	1108	032415	78S	69S	57S	44S	31S	17S	4S	9N	22N	36N
5046	9	2	W	111E	1108	051902	78S	69S	56S	44S	30S	17S	3S	9N	23N	36N
5047	10	2	W	82E	1108	071353	77S	68S	56S	43S	30S	16S	3S	10N	24N	37N
5048	11	2	F	53E	1108	090846	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
5049	12	2	F	25E	1108	110343	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N
5050	1	2	F	4W	1108	125822	77S	67S	54S	41S	28S	15S	1S	11N	25N	38N
5051	2	2	F	33W	1108	145245	77S	67S	55S	42S	29S	16S	2S	10N	24N	37N
5052	3	2	F	61W	1108	164712	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5053	4	2	F	90W	1108	184141	78S	68S	56S	43S	30S	17S	3S	9N	23N	36N
5054	5	2	F	119W	1108	203614	78S	69S	56S	44S	30S	17S	3S	9N	23N	36N
5055	6	2	F	147W	1108	223050	78S	69S	57S	44S	30S	17S	3S	9N	23N	36N
5056	7	2	W	176W	1109	002524	78S	69S	57S	44S	31S	17S	4S	9N	22N	36N
5057	8	2	W	155E	1109	022006	78S	69S	57S	44S	30S	17S	4S	9N	23N	36N
5058	9	2	W	127E	1109	041451	78S	69S	56S	43S	30S	17S	3S	9N	23N	37N
5059	10	2	W	98E	1109	060938	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5060	11	2	W	69E	1109	080429	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N
5061	12	2	F	41E	1109	095923	77S	67S	55S	42S	28S	15S	1S	11N	25N	39N
5062	13	2	F	12E	1109	115421	76S	66S	54S	41S	27S	14S	0N	12N	26N	40N
5063	1	2	F	17W	1109	134900	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N
5064	2	2	F	45W	1109	154324	77S	67S	54S	41S	28S	15S	1S	11N	25N	38N
5065	3	2	F	74W	1109	173750	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
5066	4	2	F	103W	1109	193219	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N
5067	5	2	F	131W	1109	212652	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5068	6	2	F	160W	1109	232117	78S	69S	56S	44S	30S	17S	3S	9N	23N	36N
5069	7	2	W	171E	1110	011554	78S	69S	57S	44S	30S	17S	3S	9N	23N	36N
5070	8	2	W	143E	1110	031034	78S	69S	57S	44S	30S	17S	3S	9N	23N	36N
5071	9	2	W	114E	1110	050518	78S	68S	56S	43S	30S	17S	3S	10N	23N	37N
5072	10	2	W	85E	1110	070005	77S	68S	56S	43S	30S	16S	3S	10N	24N	37N
5073	11	2	F	57E	1110	085454	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N
5074	12	2	F	28E	1110	104947	77S	67S	55S	42S	28S	15S	1S	11N	25N	39N
5075	1	2	F	1W	1110	124903	68S	55S	42S	28S	15S	1S	13N	26N	40N	53N
5076	2	2	F	29W	1110	143922	77S	67S	55S	42S	29S	15S	2S	12N	26N	39N
5077	3	2	F	58W	1110	163346	78S	68S	54S	43S	29S	16S	3S	12N	25N	38N
5078	4	2	F	87W	1110	182813	77S	67S	55S	42S	29S	16S	2S	11N	24N	38N
5079	5	2	F	115W	1110	202243	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N
5080	6	2	F	144W	1110	221716	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5081	7	2	W	173W	1111	001147	78S	68S	56S	43S	30S	17S	3S	10N	23N	37N
5082	8	2	W	159E	1111	020626	78S	68S	56S	43S	30S	17S	3S	10N	23N	37N
5083	9	2	W	130E	1111	040108	78S	68S	56S	43S	30S	16S	3S	10N	23N	37N
5084	10	2	W	101E	1111	055553	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N
5085	11	2	W	73E	1111	075041	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N
5086	12	2	F	44E	1111	094532	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N
5087	13	2	F	15E	1111	114027	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N
5088	1	2	F	13W	1111	133504	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N
5089	2	2	F	42W	1111	152927	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N
5090	3	2	F	71W	1111	172353	77S	68S	55S	43S	29S	16S	2S	10N	24N	37N

PASS	TRACK	C	S	ALON	MODA	HRMNSL	SUB SATELLITE POINT PICTURE LOCATION											
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT
5091	4	2	F	99W	1111	191822	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N
5092	5	2	F	128W	1111	211254	78S	68S	56S	43S	30S	17S	3S	9N	23N	37N	50N	63N
5093	6	2	F	157W	1111	230729	78S	69S	56S	43S	30S	17S	3S	9N	23N	36N	50N	63N
5094	7	2	W	175E	1112	010200	78S	69S	57S	44S	31S	17S	4S	9N	23N	36N	49N	62N
5095	8	2	W	146E	1112	025641	78S	69S	57S	44S	30S	17S	3S	9N	23N	36N	50N	62N
5096	9	2	W	117E	1112	045125	78S	69S	56S	43S	30S	17S	3S	9N	23N	37N	50N	63N
5097	10	2	W	89E	1112	064613	77S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N
5098	11	2	F	60E	1112	084103	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N	51N	64N
5099	12	2	F	31E	1112	103556	77S	67S	55S	42S	28S	15S	1S	11N	25N	39N	52N	65N
5100	13	2	F	3E	1112	123053	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N	53N	65N
5101	1	2	F	26W	1112	142532	76S	66S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N
5102	2	2	F	55W	1112	161955	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N	51N	64N
5103	3	2	F	83W	1112	181420	77S	68S	55S	42S	29S	16S	2S	10N	24N	37N	51N	63N
5104	4	2	F	112W	1112	200850	77S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N
5105	5	2	F	141W	1112	220322	78S	68S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N
5106	6	2	F	169W	1112	235753	78S	69S	56S	44S	30S	17S	3S	9N	23N	36N	50N	63N
5107	7	2	W	162E	1113	015231	78S	69S	57S	44S	30S	17S	3S	9N	23N	36N	50N	63N
5108	8	2	W	134E	1113	034712	78S	69S	56S	43S	30S	17S	3S	9N	23N	37N	50N	63N
5109	9	2	W	105E	1113	054156	78S	68S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N
5110	10	2	W	76E	1113	073644	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	64N
5111	11	2	F	48E	1113	093134	77S	67S	55S	42S	29S	15S	2S	11N	25N	38N	51N	64N
5112	12	2	F	19E	1113	112628	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N
5113	1	2	F	10W	1113	132106	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N	51N	64N
5114	2	2	F	38W	1113	151529	77S	68S	55S	42S	29S	16S	2S	10N	24N	37N	51N	64N
5115	3	2	F	67W	1113	170955	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N
5116	4	2	F	96W	1113	190424	78S	69S	56S	43S	30S	17S	3S	9N	23N	36N	50N	63N
5117	5	2	F	124W	1113	205856	78S	69S	57S	44S	30S	17S	4S	9N	23N	36N	49N	62N
5118	6	2	F	153W	1113	225331	78S	69S	57S	44S	31S	17S	4S	9N	22N	36N	49N	62N
5119	7	2	W	178E	1114	004807	78S	69S	57S	44S	31S	17S	4S	9N	22N	36N	49N	62N
5120	8	2	W	150E	1114	024249	78S	69S	57S	44S	31S	17S	4S	9N	23N	36N	49N	62N
5121	9	2	W	121E	1114	043733	78S	69S	57S	44S	30S	17S	3S	9N	23N	36N	50N	63N
5122	10	2	W	92E	1114	063221	78S	68S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N
5123	11	2	F	64E	1114	082712	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N	51N	64N
5124	12	2	F	35E	1114	102206	77S	67S	55S	42S	28S	15S	1S	11N	25N	39N	52N	65N
5125	13	2	F	6E	1114	121644	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N
5126	1	2	F	22W	1114	141107	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	50N	63N
5127	2	2	F	51W	1114	160533	78S	68S	56S	43S	30S	17S	3S	9N	23N	37N	50N	63N
5128	3	2	F	80W	1114	180002	78S	69S	57S	44S	31S	17S	4S	9N	23N	36N	49N	62N
5129	4	2	F	108W	1114	195434	78S	69S	57S	44S	31S	17S	4S	9N	22N	36N	49N	62N
5130	5	2	F	137W	1114	214909	78S	69S	57S	44S	31S	18S	4S	9N	22N	36N	49N	62N
5131	6	2	F	166W	1114	234348	78S	69S	57S	44S	31S	18S	4S	9N	22N	36N	49N	62N
5132	7	2	W	166E	1115	013829	78S	69S	57S	44S	31S	17S	4S	9N	22N	36N	49N	62N
5133	8	2	W	137E	1115	033314	78S	69S	57S	44S	31S	17S	4S	9N	23N	36N	50N	62N
5134	9	2	W	108E	1115	052802	78S	69S	56S	43S	30S	17S	3S	10N	23N	37N	50N	63N
5135	10	2	W	80E	1115	072253	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	64N
5136	11	2	F	51E	1115	091748	77S	67S	55S	42S	29S	15S	1S	11N	25N	38N	52N	64N
5137	12	2	F	22E	1115	111245	77S	66S	54S	41S	28S	14S	0N	12N	26N	39N	53N	65N
5138	1	2	F	6W	1115	130724	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N
5139	2	2	F	35W	1115	150147	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N
5140	3	2	F	64W	1115	165613	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	63N
5141	4	2	F	92W	1115	185042	77S	68S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N
5142	5	2	F	121W	1115	204514	78S	69S	56S	43S	30S	17S	3S	9N	23N	37N	50N	63N
5143	6	2	F	150W	1115	223950	78S	69S	56S	43S	30S	17S	3S	9N	23N	36N	50N	63N
5144	7	2	W	178W	1116	003428	78S	69S	56S	44S	30S	17S	3S	9N	23N	37N	50N	63N
5145	8	2	W	153E	1116	022910	78S	69S	56S	43S	30S	17S	3S	10N	23N	37N	50N	63N
5146	9	2	W	124E	1116	042355	78S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N
5147	10	2	W	96E	1116	061843	77S	68S	56S	43S	29S	16S	2S	10N	24N	38N	51N	64N
5148	11	2	F	67E	1116	081334	77S	67S	55S	42S	29S	15S	1S	11N	25N	38N	52N	64N
5149	12	2	F	38E	1116	100828	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N	65N
5150	13	2	F	10E	1116	120325	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N	66N
5151	1	2	F	19W	1116	135804	76S	66S	53S	40S	27S	14S	0N	12N	26N	39N	53N	65N
5152	2	2	F	48W	1116	155226	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N
5153	3	2	F	76W	1116	174652	77S	67S	55S	42S	29S	15S	2S	11N	25N	38N	51N	64N
5154	4	2	F	105W	1116	194121	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N	51N	64N
5155	5	2	F	134W	1116	213553	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	63N
5156	6	2	F	162W	1116	233029	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	63N
5157	7	2	W	169E	1117	012507	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	63N
5158	8	2	W	140E	1117	031948	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	64N
5159	9	2	W	112E	1117	051433	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N	51N	64N
5160	10	2	W	83E	1117													



PASS TRACK	C	S	ALON	MODA	HRMNSE	SUB-SATELLITE POINT PICTURE LOCATION												
						LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	
5166	4	2	F	89W	1117	103657	77S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N
5167	5	2	F	118W	1117	203129	78S	68S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N
5168	6	2	F	146W	1117	222603	78S	69S	56S	43S	30S	17S	3S	10N	23N	37N	50N	63N
5169	7	2	W	175W	1118	002042	78S	69S	57S	44S	31S	18S	4S	10N	24N	37N	50N	63N
5170	8	2	W	156E	1118	021523	78S	69S	57S	44S	31S	18S	4S	10N	24N	37N	51N	63N
5171	9	2	W	120E	1118	041007	78S	69S	57S	44S	31S	17S	4S	10N	24N	38N	51N	64N
5172	10	2	W	99E	1118	060454	79S	69S	57S	43S	30S	17S	3S	11N	24N	37N	51N	64N
5173	11	2	W	70E	1118	075945	78S	68S	56S	43S	29S	17S	3S	12N	25N	48N	52N	64N
5174	12	2	F	41E	1118	095438	78S	68S	55S	42S	29S	15S	2S	12N	26N	49N	53N	65N
5175	13	2	F	12E	1118	114934	77S	67S	54S	41S	28S	14S	1S	13N	27N	40N	54N	66N
5176	1	2	F	16W	1118	134414	77S	67S	54S	42S	28S	14S	1S	13N	26N	40N	53N	66N
5177	2	2	F	45W	1118	153837	77S	67S	55S	42S	29S	15S	2S	12N	26N	39N	52N	65N
5178	3	2	F	73W	1118	173303	78S	68S	55S	43S	29S	16S	2S	12N	25N	38N	52N	64N
5179	4	2	F	102W	1118	192732	78S	68S	56S	43S	30S	16S	3S	11N	24N	37N	51N	64N
5180	5	2	F	130W	1118	212205	78S	69S	57S	43S	30S	16S	3S	11N	24N	38N	51N	64N
5181	6	2	F	159W	1118	231641	78S	69S	56S	44S	30S	17S	4S	11N	24N	38N	51N	64N
5182	7	2	W	172E	1119	011117	78S	69S	57S	44S	30S	17S	4S	11N	24N	37N	51N	64N
5183	8	2	W	144E	1119	030559	78S	69S	57S	44S	30S	17S	3S	11N	24N	38N	51N	64N
5184	9	2	W	116E	1119	050043	78S	69S	56S	44S	30S	17S	3S	11N	24N	38N	51N	64N
5185	10	2	W	86E	1119	065550	78S	68S	56S	44S	29S	16S	3S	11N	25N	38N	52N	64N
5186	11	2	F	58E	1119	085021	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N
5187	12	2	F	29E	1119	104515	76S	66S	54S	40S	27S	14S	0N	13N	26N	40N	53N	66N
5188	1	2	F	0W	1119	123953	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N	65N
5189	2	2	F	28W	1119	143418	77S	67S	54S	41S	28S	15S	1S	11N	25N	39N	52N	64N
5190	3	2	F	57W	1119	162844	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N
5191	4	2	F	86W	1119	182313	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	63N
5192	5	2	F	114W	1119	201745	77S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N
5193	6	2	F	143W	1119	221220	78S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N
5194	7	2	W	172W	1120	000653	78S	69S	56S	43S	30S	17S	3S	10N	23N	37N	50N	63N
5195	8	2	W	160E	1120	020134	78S	68S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N
5196	9	2	W	131E	1120	035617	78S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N
5197	10	2	W	102E	1120	055104	77S	68S	56S	43S	29S	16S	2S	11N	24N	38N	51N	64N
5198	11	2	W	74E	1120	074554	77S	67S	55S	42S	29S	15S	1S	11N	25N	38N	52N	64N
5199	12	2	F	45E	1120	094048	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N	65N
5200	13	2	F	16E	1120	113544	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N	66N
5201	1	2	F	12W	1120	133022	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N	53N	65N
5202	2	2	F	41W	1120	152444	77S	67S	54S	41S	28S	15S	1S	12N	25N	39N	52N	64N
5203	3	2	F	70W	1120	171909	77S	67S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N
5204	4	2	F	98W	1120	191337	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	63N
5205	5	2	F	127W	1120	210807	77S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N
5206	6	2	F	156W	1120	230241	78S	68S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N
5207	7	2	W	176E	1121	005714	78S	69S	56S	43S	30S	17S	3S	9N	23N	37N	50N	63N
5208	8	2	W	147E	1121	025154	78S	69S	56S	43S	30S	17S	3S	10N	23N	37N	50N	63N
5209	9	2	W	118E	1121	044637	78S	68S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N
5210	10	2	W	90E	1121	064123	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	63N
5211	11	2	F	61E	1121	083613	77S	68S	55S	42S	29S	15S	2S	11N	25N	38N	51N	64N
5212	12	2	F	32E	1121	103105	77S	67S	55S	42S	28S	15S	1S	12N	25N	39N	52N	65N
5213	13	2	F	4E	1121	122600	76S	66S	54S	41S	27S	14S	0N	13N	26N	40N	53N	66N
5214	1	2	F	25W	1121	142038	76S	66S	54S	41S	28S	14S	1S	12N	26N	39N	52N	65N
5215	2	2	F	54W	1121	161500	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N	51N	64N
5216	3	2	F	82W	1121	180925	77S	68S	55S	42S	29S	16S	2S	10N	24N	37N	51N	63N
5217	4	2	F	111W	1121	200354	77S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N
5218	5	2	F	140W	1121	215825	78S	69S	56S	43S	30S	17S	3S	10N	23N	37N	50N	63N
5219	6	2	W	168W	1121	235301	78S	69S	56S	43S	30S	17S	3S	10N	23N	37N	50N	63N
5220	7	2	W	163E	1122	014738	78S	69S	57S	44S	30S	17S	3S	9N	23N	37N	50N	63N
5221	8	2	W	134E	1122	034219	78S	69S	56S	43S	30S	17S	3S	10N	23N	37N	50N	63N
5222	9	2	W	106E	1122	053702	78S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N
5223	10	2	W	77E	1122	073149	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	64N
5224	11	2	F	48E	1122	092639	77S	68S	55S	42S	29S	15S	2S	11N	25N	38N	51N	64N
5225	12	2	F	20E	1122	112132	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N
5226	1	2	F	9W	1122	131610	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N	52N	64N
5227	2	2	F	38W	1122	151034	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N	51N	64N
5228	3	2	F	66W	1122	170500	77S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N
5229	4	2	F	95W	1122	185930	78S	69S	56S	43S	30S	17S	3S	10N	23N	37N	50N	63N
5230	5	2	F	124W	1122	205403	78S	69S	57S	44S	30S	17S	3S	9N	23N	36N	50N	62N
5231	6	2	F	152W	1122	224840	78S	69S	57S	44S	30S	17S	3S	9N	23N	36N	50N	62N
5232	7	2	W	179E	1123	004317	78S	69S	57S	44S	31S	17S	3S	9N	23N	36N	50N	62N
5233	8	2	W	150E	1123	023759	78S	69S	57S	44S	30S	17S	3S	9N	23N	36N	50N	63N
5234	9	2	W	122E	1123	043244	78S	69S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N
5235	10	2	W	93E	1123	062733	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	64N
5236	11	2	F	64E	1123	082224	77S	68S	55S	42S	29S	15S	2S	11N	25N	38N	51N	64N
5237	12	2	F	36E	1123	101718	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N
5238	13	2	F	7E	1123	121157	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N	52N	64N
5239	1	2	F	22W	1123	140621	77S	68S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N
5240	2	2	F	50W	1123	160048	77S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N

PASS	TRACK	C	S	ALON	MODA	HRMNSE	SUD-SATELLITE POINT										PICTURE LOCATION					
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT
5241	3	2	F	79W	1123	175510	70S	69S	56S	43S	30S	17S	3S	10N	23N	37N	50N	63N				
5242	4	2	F	108W	1123	194951	70S	69S	57S	44S	30S	17S	3S	9N	23N	36N	50N	63N				
5243	5	2	F	136W	1123	214427	70S	69S	57S	44S	30S	17S	3S	9N	23N	36N	50N	62N				
5244	6	2	F	165W	1123	233900	70S	69S	57S	44S	30S	17S	3S	9N	23N	37N	50N	63N				
5245	7	2	W	166E	1124	013351	70S	69S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N				
5246	8	2	W	130E	1124	032036	70S	68S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N				
5247	9	2	W	109E	1124	052325	77S	68S	56S	42S	29S	16S	2S	11N	24N	38N	51N	64N				
5248	10	2	W	80E	1124	071817	77S	67S	55S	42S	28S	15S	1S	11N	25N	39N	52N	64N				
5249	11	2	F	52E	1124	091312	77S	68S	55S	42S	28S	15S	1S	12N	26N	49N	53N	66N				
5250	12	2	F	23E	1124	110810	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	54N	66N				
5251	1	2	F	6W	1124	130250	76S	66S	53S	40S	27S	13S	0N	13N	26N	40N	53N	66N				
5252	2	2	F	34W	1124	145713	77S	66S	54S	41S	28S	14S	0N	12N	26N	39N	52N	65N				
5253	3	2	F	63W	1124	165130	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N	52N	64N				
5254	4	2	F	92W	1124	184607	77S	67S	55S	42S	29S	15S	2S	11N	25N	38N	51N	64N				
5255	5	2	F	120W	1124	204039	70S	68S	54S	43S	30S	14S	3S	11N	24N	38N	51N	64N				
5256	6	2	F	149W	1124	223514	77S	68S	56S	43S	29S	16S	2S	10N	24N	38N	51N	64N				
5257	7	2	W	178W	1125	002953	77S	68S	56S	43S	29S	16S	2S	11N	24N	38N	51N	64N				
5258	8	2	W	154E	1125	022434	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N	51N	64N				
5259	9	2	W	125E	1125	041919	77S	68S	55S	42S	29S	15S	2S	11N	25N	38N	51N	64N				
5260	10	2	W	96E	1125	061406	77S	67S	55S	42S	28S	15S	1S	12N	25N	39N	52N	65N				
5261	11	2	F	60E	1125	080056	77S	67S	54S	41S	28S	14S	0N	12N	26N	39N	52N	65N				
5262	12	2	F	39E	1125	100350	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N	66N				
5263	13	2	F	10E	1125	115847	76S	65S	52S	39S	26S	12S	0N	14N	28N	41N	54N	67N				
5264	1	2	F	18W	1125	135325	76S	65S	53S	40S	26S	13S	0N	13N	27N	40N	54N	66N				
5265	2	2	F	47W	1125	154748	76S	66S	53S	40S	27S	13S	0N	13N	26N	40N	53N	65N				
5266	3	2	F	76W	1125	174214	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N	65N				
5267	4	2	F	104W	1125	193643	77S	67S	55S	41S	28S	15S	1S	12N	25N	39N	52N	64N				
5268	5	2	F	133W	1125	213115	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N	51N	64N				
5269	6	2	F	162W	1125	232550	77S	67S	55S	42S	29S	15S	2S	11N	25N	38N	51N	64N				
5270	7	2	W	170E	1126	012020	77S	67S	55S	42S	29S	15S	2S	11N	25N	38N	51N	64N				
5271	8	2	W	141E	1126	031509	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N	52N	64N				
5272	9	2	W	112E	1126	050954	77S	67S	55S	42S	28S	15S	1S	12N	25N	39N	52N	65N				
5273	10	2	W	84E	1126	070441	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N	65N				
5274	11	2	F	55E	1126	085932	76S	66S	54S	40S	27S	13S	0N	13N	26N	40N	53N	66N				
5275	12	2	F	26E	1126	105426	76S	65S	53S	40S	26S	13S	0N	14N	27N	41N	54N	66N				
5276	1	2	F	2W	1126	124904	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N	66N				
5277	2	2	F	31W	1126	144326	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N	65N				
5278	3	2	F	60W	1126	163752	77S	67S	54S	41S	28S	15S	1S	12N	25N	39N	52N	64N				
5279	4	2	F	80W	1126	183221	77S	67S	55S	42S	29S	15S	1S	11N	25N	38N	51N	64N				
5280	5	2	F	117W	1126	202653	77S	68S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N				
5281	6	2	F	146W	1126	222120	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N	51N	64N				
5282	7	2	W	174W	1127	001602	77S	68S	56S	43S	29S	16S	2S	11N	24N	38N	51N	64N				
5283	8	2	W	157E	1127	021043	77S	68S	56S	42S	29S	16S	2S	11N	24N	38N	51N	64N				
5284	9	2	W	120E	1127	040528	77S	68S	55S	42S	29S	15S	2S	11N	25N	38N	51N	64N				
5285	10	2	W	100E	1127	060015	77S	67S	55S	42S	28S	15S	1S	12N	25N	39N	52N	65N				
5286	11	2	W	71E	1127	075505	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N	65N				
5287	12	2	F	42E	1127	094959	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N	66N				
5288	13	2	F	14E	1127	114455	76S	65S	53S	40S	27S	13S	1N	14N	28N	41N	54N					
5289	1	2	F	15W	1127	133934	76S	65S	53S	40S	26S	13S	0N	13N	27N	40N	53N	66N				
5290	2	2	F	44W	1127	153354	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N	53N	65N				
5291	3	2	F	72W	1127	172817	77S	67S	54S	41S	28S	15S	1S	12N	25N	39N	52N	64N				
5292	4	2	F	101W	1127	192243	77S	67S	55S	42S	29S	15S	2S	11N	25N	38N	51N	64N				
5293	5	2	F	130W	1127	211713	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N	51N	64N				
5294	6	2	F	158W	1127	231145	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N	51N	63N				
5295	7	2	W	173E	1128	010627	77S	68S	56S	43S	29S	16S	2S	11N	24N	37N	50N	63N				
5296	8	2	W	144E	1128	030107	77S	68S	56S	42S	29S	16S	2S	11N	24N	38N	51N	64N				
5297	9	2	W	116E	1128	045549	77S	68S	55S	42S	29S	15S	2S	11N	24N	38N	51N	64N				
5298	10	2	W	87E	1128	065035	77S	67S	55S	42S	29S	15S	1S	11N	25N	38N	52N	64N				
5299	11	2	F	58E	1128	084523	77S	67S	55S	41S	28S	14S	1S	12N	25N	39N	52N	65N				
5300	12	2	F	30E	1128	104015	77S	66S	54S	41S	27S	14S	0N	13N	26N	40N	53N	65N				
5301	13	2	F	1E	1128	123452	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N	65N				
5302	1	2	F	20W	1128	142915	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N	51N	64N				
5303	2	2	F	56W	1128	162342	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N	51N	64N				
5304	3	2	F	85W	1128	181811	70S	68S	56S	43S	30S	16S	2S	10N	24N	37N	50N	63N				
5305	4	2	F	114W	1128	201243	70S	69S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N				
5306	5	2	F	142W	1128	220719	70S	69S	56S	43S	30S	16S	3S	10N	23N	37N	50N	63N				
5307	6	2	W	171W	1129	000157	70S	69S	56S	43S	30S	17S	3S	10N	23N	37N	50N	63N				
5308	7	2	W	160E	1129	015639	70S	69S	56S	43S	30S	16S	3S	10N	24N	37N	50N	63N				
5309	8	2	W	132E	1129	035123	70S	68S	56S	43S	30S	16S	2S	10N	24N	37N	51N	63N				
5310	9	2	W	103E	1129	054611	77S	68S	56S	42S	29S	15S	2S	11N	24N	38N	51N	64N				
5311	10	2	W	74E	1129	074102	77S	67S	55S	42S	28S	15S	1S	11N	25N	39N	52N	64N				
5312	11	2	F	46E	1129	093556	77S	67S	54S	41S	28S	14S	0N	12N	26N	39N	53N	65N				
5313	12	2	F	17E	1129	113053	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	54N	66N				
5314	1	2	F	12W	1129	132533	76S	66S	53S	40S	27S	13S	0N	13N	26N	40N	53N	65N				
5315	2	2	F	40W	1129	151955	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N	65N				



PASS	TRACK	C	S	ALON	MODA	HRMNS	SUB SATELLITE POINT PICTURE LOCATION									
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT
5316	3	2	F	69W	1129	171420	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N
5317	4	2	F	90W	1129	190847	77S	68S	55S	42S	29S	15S	2S	11N	24N	38N
5318	5	2	F	126W	1129	210318	77S	68S	56S	43S	29S	16S	2S	10N	24N	37N
5319	6	2	F	155W	1129	225752	78S	68S	56S	43S	30S	16S	2S	10N	24N	37N
5320	7	2	W	176E	1130	005237	77S	68S	56S	43S	29S	16S	2S	11N	24N	38N
5321	8	2	W	140E	1130	024718	77S	68S	56S	42S	29S	16S	2S	11N	24N	38N
5322	9	2	W	119E	1130	044202	77S	68S	55S	42S	29S	15S	2S	11N	25N	38N
5323	10	2	W	90E	1130	063649	77S	67S	55S	42S	28S	15S	1S	11N	25N	39N
5324	11	2	F	62E	1130	083139	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N
5325	12	2	F	33E	1130	102633	76S	66S	54S	40S	27S	13S	0N	13N	27N	40N
5326	13	2	F	4E	1130	122129	76S	65S	53S	39S	26S	12S	0N	14N	27N	41N
5327	1	2	F	24W	1130	141608	76S	65S	53S	40S	26S	13S	0N	13N	27N	40N
5328	2	2	F	53W	1130	161031	76S	66S	54S	40S	27S	14S	0N	13N	26N	40N
5329	3	2	F	82W	1130	180456	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N
5330	4	2	F	110W	1130	195925	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N
5331	5	2	F	139W	1130	215357	77S	67S	55S	42S	29S	15S	1S	11N	25N	38N
5332	6	2	W	168W	1130	234835	77S	67S	55S	42S	29S	15S	1S	11N	25N	38N
5333	7	2	W	164E	1201	014313	77S	67S	55S	42S	29S	15S	1S	11N	25N	38N
5334	8	2	W	135E	1201	033754	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N
5335	9	2	W	106E	1201	053239	77S	67S	55S	42S	28S	15S	1S	12N	25N	39N
5336	10	2	W	78E	1201	072726	77S	67S	54S	41S	28S	14S	0N	12N	26N	39N
5337	11	2	F	49E	1201	092217	76S	66S	54S	40S	27S	13S	0N	13N	26N	40N
5338	12	2	F	20E	1201	111710	76S	65S	53S	40S	26S	13S	0N	14N	27N	41N
5339	1	2	F	9W	1201	131148	77S	67S	54S	41S	27S	14S	0N	13N	27N	40N
5340	2	2	F	37W	1201	150610	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N
5341	3	2	F	66W	1201	170036	77S	67S	55S	41S	28S	15S	1S	12N	25N	39N
5342	4	2	F	94W	1201	185505	77S	67S	55S	42S	29S	15S	1S	11N	25N	38N
5343	5	2	F	123W	1201	204937	77S	68S	55S	42S	29S	15S	2S	11N	24N	38N
5344	6	2	F	152W	1201	224412	77S	68S	55S	42S	29S	16S	2S	11N	24N	38N
5345	7	2	W	180W	1202	003849	77S	68S	56S	42S	29S	16S	2S	11N	24N	38N
5346	8	2	W	151E	1202	023330	77S	68S	55S	42S	29S	15S	2S	11N	24N	38N
5347	9	2	W	122E	1202	042814	77S	68S	55S	42S	29S	15S	1S	11N	25N	38N
5348	10	2	W	94E	1202	061844	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N
5349	11	2	W	65E	1202	081334	77S	77S	67S	54S	41S	27S	14S	0N	12N	26N
5350	12	2	F	36E	1202	100827	77S	76S	66S	53S	40S	27S	13S	0N	13N	27N
5351	13	2	F	8E	1202	120324	77S	76S	65S	52S	39S	26S	12S	1N	14N	28N
5352	1	2	F	21W	1202	135803	77S	76S	65S	53S	39S	26S	13S	0N	14N	27N
5353	2	2	F	50W	1202	155225	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N
5354	3	2	F	78W	1202	174649	77S	77S	67S	54S	41S	28S	14S	1S	12N	26N
5355	4	2	F	107W	1202	194117	76S	77S	67S	55S	42S	28S	15S	1S	12N	25N
5356	5	2	F	136W	1202	213548	76S	77S	67S	55S	42S	29S	15S	1S	11N	25N
5357	6	2	F	164W	1202	233017	76S	77S	68S	55S	42S	29S	15S	2S	11N	24N
5358	7	2	W	167E	1203	012454	76S	77S	68S	56S	42S	29S	16S	2S	11N	24N
5359	8	2	W	138E	1203	031934	76S	77S	68S	55S	42S	29S	15S	2S	11N	24N
5360	9	2	W	110E	1203	051418	76S	77S	68S	55S	42S	29S	15S	1S	11N	25N
5361	10	2	W	81E	1203	070904	76S	77S	67S	55S	42S	28S	15S	1S	12N	25N
5362	11	2	F	53E	1203	090354	76S	77S	67S	54S	41S	28S	14S	0N	12N	26N
5363	12	2	F	24E	1203	105847	77S	76S	66S	54S	40S	27S	13S	0N	13N	27N
5364	1	2	F	5W	1203	125343	77S	76S	65S	53S	39S	26S	12S	0N	14N	27N
5365	2	2	F	33W	1203	144822	77S	76S	65S	53S	40S	26S	13S	0N	13N	27N
5366	3	2	F	62W	1203	164245	77S	76S	66S	54S	40S	27S	14S	0N	13N	26N
5367	4	2	F	91W	1203	183711	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N
5368	5	2	F	119W	1203	203140	76S	77S	67S	55S	42S	28S	15S	1S	12N	25N
5369	6	2	F	148W	1203	222612	76S	77S	67S	55S	42S	29S	15S	1S	11N	25N
5370	7	2	W	177W	1204	002047	76S	77S	68S	55S	42S	29S	15S	2S	11N	25N
5371	8	2	W	155E	1204	021525	76S	77S	68S	55S	42S	29S	15S	2S	11N	25N
5372	9	2	W	126E	1204	041006	76S	77S	67S	55S	42S	29S	15S	1S	11N	25N
5373	10	2	W	97E	1204	060450	76S	77S	67S	55S	42S	28S	15S	1S	12N	25N
5374	11	2	W	69E	1204	075938	76S	77S	67S	54S	41S	28S	14S	1S	12N	26N
5375	12	2	F	40E	1204	095428	77S	77S	66S	54S	41S	27S	14S	0N	13N	26N
5376	13	2	F	11E	1204	114922	77S	76S	66S	53S	40S	26S	13S	0N	14N	27N
5377	1	2	F	17W	1204	134419	77S	75S	65S	52S	39S	25S	12S	1N	15N	28N
5378	2	2	F	46W	1204	153858	77S	76S	65S	52S	39S	26S	12S	0N	14N	27N
5379	3	2	F	75W	1204	173321	77S	76S	66S	53S	40S	26S	13S	0N	13N	27N
5380	4	2	F	103W	1204	192747	77S	76S	66S	54S	41S	27S	14S	0N	13N	26N
5381	5	2	F	132W	1204	212215	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N
5382	6	2	F	161W	1204	231647	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N
5383	7	2	W	171E	1205	011128	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N
5384	8	2	W	142E	1205	030606	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N
5385	9	2	W	113E	1205	050048	76S	77S	67S	54S	41S	28S	14S	0N	12N	26N
5386	10	2	W	85E	1205	065532	77S	77S	66S	54S	41S	27S	14S	0N	12N	26N
5387	11	2	F	56E	1205	085020	77S	76S	66S	53S	40S	27S	13S	0N	13N	27N
5388	12	2	F	27E	1205	104510	77S	76S	65S	53S	40S	26S	13S	0N	14N	27N
5389	1	2	F	1W	1205	124004	77S	76S	65S	52S	39S	25S	12S	1N	14N	28N
5390	2	2	F	30W	1205	143442	77S	76S	65S	52S	39S	26S	12S	0N	14N	27N



PASS	TRACK	C	S	ALON	MODA	HRMNSL	SUB SATELLITE POINT					PICTURE					LOCATION				
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT
5391	3	2	F	59W	1205	162905	77S	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N			
5392	4	2	F	87W	1205	182331	77S	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N	53N			
5393	5	2	F	116W	1205	201800	76S	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N			
5394	6	2	F	145W	1205	221232	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N	39N	52N			
5395	7	2	F	173W	1206	000707	76S	77S	67S	55S	42S	28S	15S	1S	12N	25N	39N	52N			
5396	8	2	W	158E	1206	020145	76S	77S	67S	55S	42S	28S	15S	1S	12N	25N	39N	52N			
5397	9	2	W	129E	1206	035626	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N	39N	52N			
5398	10	2	W	101E	1206	055110	76S	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N			
5399	11	2	W	72E	1206	074557	77S	77S	66S	54S	41S	27S	14S	0N	13N	26N	40N	53N			
5400	12	2	F	43E	1206	094508	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N				
5401	13	2	F	15E	1206	113541	77S	76S	65S	53S	39S	26S	12S	0N	14N	28N	41N	54N			
5402	1	2	F	14W	1206	133038	78S	75S	64S	52S	38S	25S	11S	1N	15N	29N	42N	55N			
5403	2	2	F	43W	1206	152517	78S	75S	64S	52S	39S	25S	12S	1N	14N	28N	41N	54N			
5404	3	2	F	71W	1206	171938	77S	76S	65S	53S	40S	26S	13S	0N	14N	27N	40N	54N			
5405	4	2	F	100W	1206	191412	77S	76S	65S	53S	40S	26S	13S	0N	13N	27N	40N	53N			
5406	5	2	F	129W	1206	210840	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N	40N	53N			
5407	6	2	F	157W	1206	230311	77S	76S	66S	54S	41S	27S	14S	0N	12N	26N	39N	53N			
5408	7	2	W	174E	1207	005745	77S	77S	67S	54S	41S	27S	14S	0N	12N	26N	39N	52N			
5409	8	2	W	145E	1207	025222	76S	77S	67S	54S	41S	28S	14S	0N	12N	26N	39N	52N			
5410	9	2	W	117E	1207	044702	77S	77S	67S	54S	41S	27S	14S	0N	12N	26N	39N	52N			
5411	10	2	W	88E	1207	064145	77S	77S	66S	54S	41S	27S	14S	0N	13N	26N	40N	53N			
5412	11	2	F	59E	1207	083631	77S	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N			
5413	12	2	F	31E	1207	103121	77S	76S	65S	53S	40S	26S	13S	0N	14N	27N	41N	54N			
5414	13	2	F	2E	1207	122613	77S	76S	65S	52S	39S	25S	12S	1N	14N	28N	41N	54N			
5415	1	2	F	27W	1207	142051	77S	76S	65S	52S	39S	26S	12S	0N	14N	27N	41N	54N			
5416	2	2	F	55W	1207	161514	77S	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N			
5417	3	2	F	84W	1207	180939	77S	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N			
5418	4	2	F	113W	1207	200408	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N			
5419	5	2	F	141W	1207	215840	76S	77S	67S	55S	41S	28S	15S	1S	12N	25N	39N	52N			
5420	6	2	W	170W	1207	235316	76S	77S	67S	55S	42S	28S	15S	1S	12N	25N	38N	52N			
5421	7	2	W	161E	1208	014754	76S	77S	67S	55S	42S	28S	15S	1S	12N	25N	38N	52N			
5422	8	2	W	133E	1208	034235	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N	39N	52N			
5423	9	2	W	104E	1208	053719	76S	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N			
5424	10	2	W	75E	1208	073206	77S	77S	66S	54S	41S	27S	14S	0N	13N	26N	39N	53N			
5425	11	2	F	47E	1208	092657	77S	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N			
5426	12	2	F	18E	1208	112150	77S	76S	65S	53S	39S	26S	12S	0N	14N	28N	41N	54N			
5427	1	2	F	11W	1208	131647	78S	75S	64S	52S	38S	25S	11S	1N	15N	29N	42N	55N			
5428	2	2	F	39W	1208	151127	78S	75S	64S	52S	39S	25S	12S	1N	14N	28N	41N	54N			
5429	3	2	F	71W	1208	170549	78S	77S	66S	53S	40S	27S	13S	0N	14N	27N	41N	54N			
5430	4	2	F	97W	1208	190015	77S	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N			
5431	5	2	F	125W	1208	205444	77S	76S	66S	54S	41S	27S	14S	0N	13N	26N	39N	53N			
5432	6	2	F	154W	1208	224916	77S	77S	67S	54S	41S	27S	14S	0N	12N	26N	39N	52N			
5433	7	2	W	177E	1209	004353	76S	77S	67S	54S	41S	28S	14S	0N	12N	26N	39N	52N			
5434	8	2	W	149E	1209	023831	76S	77S	67S	54S	41S	28S	14S	0N	12N	26N	39N	52N			
5435	9	2	W	120E	1209	043312	77S	77S	67S	54S	41S	27S	14S	0N	12N	26N	39N	52N			
5436	10	2	W	91E	1209	062756	77S	77S	66S	54S	41S	27S	14S	0N	13N	26N	40N	53N			
5437	11	2	F	63E	1209	082243	77S	76S	66S	53S	40S	27S	13S	0N	13N	27N	40N	53N			
5438	12	2	F	34E	1209	101734	77S	76S	65S	53S	39S	26S	12S	0N	14N	27N	41N	54N			
5439	13	2	F	5E	1209	121227	77S	75S	65S	52S	39S	25S	12S	1N	15N	28N	42N	55N			
5440	1	2	F	23W	1209	140706	77S	75S	65S	52S	39S	26S	12S	1N	14N	28N	41N	54N			
5441	2	2	F	52W	1209	160128	77S	76S	66S	53S	40S	26S	13S	0N	13N	27N	40N	53N			
5442	3	2	F	81W	1209	175554	77S	76S	66S	54S	40S	27S	13S	0N	13N	26N	40N	53N			
5443	4	2	F	109W	1209	195023	77S	77S	67S	54S	41S	27S	14S	0N	12N	26N	39N	52N			
5444	5	2	F	138W	1209	214455	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N			
5445	6	2	W	167W	1209	233930	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N	39N	52N			
5446	7	2	W	165E	1210	013408	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N	39N	52N			
5447	8	2	W	136E	1210	032849	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N			
5448	9	2	W	107E	1210	052333	76S	77S	67S	54S	41S	28S	14S	0N	12N	26N	39N	52N			
5449	10	2	W	79E	1210	071821	77S	76S	66S	54S	40S	27S	13S	0N	13N	26N	40N	53N			
5450	11	2	F	50E	1210	091311	77S	76S	66S	53S	40S	26S	13S	0N	13N	27N	40N	53N			
5451	12	2	F	21E	1210	110805	77S	76S	65S	52S	39S	26S	12S	1N	14N	28N	41N	54N			
5452	1	2	F	7W	1210	130301	78S	75S	64S	51S	38S	25S	11S	2N	15N	29N	42N	55N			
5453	2	2	F	36W	1210	145742	78S	75S	64S	52S	38S	25S	11S	1N	15N	28N	42N	55N			
5454	3	2	F	65W	1210	165204	77S	76S	65S	52S	39S	26S	12S	0N	14N	27N	41N	54N			
5455	4	2	F	93W	1210	184630	77S	76S	66S	53S	40S	26S	13S	0N	13N	27N	40N	53N			
5456	5	2	F	122W	1210	204059	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N	40N	53N			
5457	6	2	F	151W	1210	223531	77S	77S	66S	54S	41S	27S	14S	0N	13N	26N	39N	53N			
5458	7	2	W	179W	1211	003006	77S	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N			
5459	8	2	W	152E	1211	022444	77S	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N			
5460	9	2	W	123E	1211	041925	77S	77S	66S	54S	41S	27S	14S	0N	13N	26N	39N	53N			
5461	10	2	W	95E	1211	061409	77S	76S	66S	54S	40S	27S	13S	0N	13N	26N	40N	53N			
5462	11	2	F	66E	1211	080857	77S	76S</													

PASS	TRACK	C	S	ALON	MOOA	HRMNSE	SUB-SATELLITE POINT PICTURE LOCATION											
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT
5466	2	2	F	49W	1211	154741	77S	76S	65S	53S	40S	26S	13S	ON	13N	27N	40N	53N
5467	3	2	F	77W	1211	174205	77S	76S	66S	54S	40S	27S	13S	ON	13N	26N	40N	53N
5468	4	2	F	106W	1211	193633	77S	77S	67S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5469	5	2	F	135W	1211	213104	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N
5470	6	2	F	163W	1211	232540	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N	39N	52N
5471	7	2	W	168E	1212	012017	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N	39N	52N
5472	8	2	W	139E	1212	031457	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N	39N	52N
5473	9	2	W	111E	1212	050941	76S	77S	67S	54S	41S	28S	14S	ON	12N	26N	39N	52N
5474	10	2	W	82E	1212	070427	77S	77S	66S	54S	41S	27S	14S	ON	13N	26N	39N	53N
5475	11	2	F	53E	1212	085917	77S	76S	66S	53S	40S	27S	13S	ON	13N	27N	40N	53N
5476	12	2	F	25E	1212	105409	77S	76S	65S	53S	39S	26S	12S	ON	14N	27N	41N	54N
5477	1	2	F	4W	1212	124905	78S	75S	64S	52S	38S	25S	11S	1N	15N	28N	42N	55N
5478	2	2	F	33W	1212	144346	78S	75S	64S	52S	39S	25S	12S	1N	14N	28N	41N	54N
5479	3	2	F	61W	1212	163807	77S	76S	65S	53S	40S	26S	13S	ON	14N	27N	40N	53N
5480	4	2	F	90W	1212	183232	77S	76S	66S	53S	40S	27S	13S	ON	13N	26N	40N	53N
5481	5	2	F	119W	1212	202659	77S	77S	66S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5482	6	2	F	147W	1212	222130	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N
5483	7	2	W	176W	1213	001609	76S	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N
5484	8	2	W	155E	1213	021047	76S	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N
5485	9	2	W	127E	1213	040527	76S	77S	67S	54S	41S	28S	14S	ON	12N	26N	39N	52N
5486	10	2	W	98E	1213	060011	76S	77S	67S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5487	11	2	F	69E	1213	075458	77S	76S	66S	54S	40S	27S	13S	ON	13N	26N	40N	53N
5488	12	2	F	41E	1213	094948	77S	76S	66S	53S	40S	26S	13S	ON	14N	27N	40N	54N
5489	13	2	F	12E	1213	114441	77S	76S	65S	52S	39S	25S	12S	1N	14N	28N	41N	54N
5490	1	2	F	17W	1213	133920	77S	76S	65S	52S	39S	26S	12S	ON	14N	27N	41N	54N
5491	2	2	F	45W	1213	153342	77S	76S	66S	53S	40S	27S	13S	ON	13N	26N	40N	53N
5492	3	2	F	74W	1213	172808	77S	77S	66S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5493	4	2	F	103W	1213	192237	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N
5494	5	2	F	131W	1213	211709	76S	77S	67S	55S	41S	28S	15S	1S	12N	25N	38N	52N
5495	6	2	F	160W	1213	231143	76S	77S	67S	55S	42S	28S	15S	1S	11N	25N	38N	51N
5496	7	2	W	171E	1214	010624	76S	77S	67S	55S	42S	28S	15S	1S	12N	25N	38N	52N
5497	8	2	W	143E	1214	030106	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N	39N	52N
5498	9	2	W	114E	1214	045550	76S	77S	67S	54S	41S	28S	14S	ON	12N	26N	39N	52N
5499	10	2	W	85E	1214	065038	77S	77S	66S	54S	41S	27S	14S	ON	13N	26N	40N	53N
5500	11	2	F	57E	1214	084528	77S	76S	66S	53S	40S	27S	13S	ON	13N	27N	40N	53N
5501	12	2	F	28E	1214	104022	77S	76S	65S	52S	39S	26S	12S	1N	14N	28N	41N	54N
5502	1	2	F	1W	1214	123519	78S	75S	64S	52S	38S	25S	11S	2N	15N	29N	42N	55N
5503	2	2	F	29W	1214	142959	78S	75S	64S	52S	38S	25S	11S	1N	15N	28N	41N	54N
5504	3	2	F	58W	1214	162422	77S	76S	65S	52S	39S	26S	12S	ON	14N	27N	41N	54N
5505	4	2	F	87W	1214	181847	77S	76S	66S	53S	40S	26S	13S	ON	13N	27N	40N	53N
5506	5	2	F	115W	1214	201316	77S	76S	66S	54S	40S	27S	13S	ON	13N	26N	39N	53N
5507	6	2	F	144W	1214	220748	77S	77S	66S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5508	7	2	W	173W	1215	000227	77S	77S	66S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5509	8	2	W	159E	1215	015705	77S	77S	66S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5510	9	2	W	130E	1215	035147	77S	77S	66S	54S	41S	27S	14S	ON	13N	26N	40N	53N
5511	10	2	W	101E	1215	054631	77S	76S	66S	53S	40S	27S	13S	ON	13N	26N	40N	53N
5512	11	2	W	73E	1215	074119	77S	76S	66S	53S	40S	26S	13S	ON	13N	27N	40N	53N
5513	12	2	F	44E	1215	093610	77S	76S	65S	52S	39S	26S	12S	1N	14N	28N	41N	54N
5514	13	2	F	15E	1215	113103	78S	75S	64S	52S	38S	25S	11S	1N	15N	28N	42N	55N
5515	1	2	F	13W	1215	132542	78S	75S	64S	52S	39S	25S	12S	1N	14N	28N	41N	54N
5516	2	2	F	42W	1215	152005	77S	76S	65S	53S	39S	26S	12S	ON	14N	27N	40N	53N
5517	3	2	F	71W	1215	171431	77S	76S	66S	53S	40S	27S	13S	ON	13N	27N	40N	53N
5518	4	2	F	99W	1215	190859	77S	77S	66S	54S	41S	27S	14S	ON	13N	26N	39N	52N
5519	5	2	F	128W	1215	210331	76S	77S	67S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5520	6	2	F	157W	1215	225806	76S	77S	67S	54S	41S	28S	14S	ON	12N	26N	39N	52N
5521	7	2	W	175E	1216	005248	76S	77S	67S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5522	8	2	W	146E	1216	024729	77S	77S	66S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5523	9	2	W	117E	1216	044214	77S	76S	66S	54S	40S	27S	13S	ON	13N	26N	40N	53N
5524	10	2	W	89E	1216	063701	77S	76S	66S	53S	40S	26S	13S	ON	13N	27N	40N	53N
5525	11	2	F	60E	1216	083151	77S	76S	65S	53S	39S	26S	12S	ON	14N	27N	41N	54N
5526	12	2	F	31E	1216	102645	78S	75S	65S	52S	39S	25S	11S	1N	15N	28N	42N	55N
5527	13	2	F	3E	1216	122142	78S	75S	64S	51S	38S	24S	10S	2N	16N	29N	43N	56N
5528	1	2	F	26W	1216	141620	78S	75S	64S	51S	38S	24S	11S	2N	15N	29N	42N	55N
5529	2	2	F	55W	1216	161041	78S	75S	65S	52S	39S	25S	12S	1N	14N	28N	41N	54N
5530	3	2	F	83W	1216	180504	77S	76S	65S	53S	40S	26S	13S	ON	13N	27N	40N	53N
5531	4	2	F	112W	1216	195931	77S	76S	66S	53S	40S	27S	13S	ON	13N	26N	40N	53N
5532	5	2	F	141W	1216	215401	77S	77S	66S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5533	6	2	F	169W	1216	234834	76S	77S	67S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5534	7	2	W	162E	1217	014310	76S	77S	67S	54S	41S	28S	14S	ON	12N	26N	39N	52N
5535	8	2	W	133E	1217	033749	76S	77S	67S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5536	9	2	W	105E	1217	053231	76S	77S	67S	54S	41S	27S	14S	ON	12N	26N	39N	52N
5537	10	2	W	76E	1217	072717	77S	76S	66S	54S	40S	27S	13S	ON	13N	26N	40N	53N
5538	11	2	F	47E	1217	092205	77S	76S	66S	53S	40S	26S	13S	ON	13N	27N	40N	53N
5539	12	2	F	19E	1217	111657	77S	76S	65S	52S	39S	26S	12S	1N	14N	28N	41N	54N
5540	1	2	F	10W	1217	131151	78S	75S	64S	52S	38S	25S	11S	1N	15N	28N	42N	55N



PASS	TRACK	L	S	ALON	MODA	HRMSE	SUB SATELLITE POINT PICTURE LOCATION									
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT
5541	2	2	F	39W	1217	150629	78S	75S	65S	52S	39S	25S	12S	1N	14N	28N
5542	3	2	F	67W	1217	170051	77S	76S	65S	53S	40S	26S	13S	0N	14N	27N
5543	4	2	F	96W	1217	185515	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N
5544	5	2	F	125W	1217	204943	77S	77S	66S	54S	41S	27S	14S	0N	12N	26N
5545	6	2	F	153W	1217	224414	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N
5546	7	2	W	178E	1218	003848	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N
5547	8	2	W	149E	1218	023325	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N
5548	9	2	W	121E	1218	042805	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N
5549	10	2	W	92E	1218	062249	76S	77S	67S	54S	41S	28S	14S	0N	12N	26N
5550	11	2	F	63E	1218	081735	77S	77S	66S	54S	41S	27S	14S	0N	13N	26N
5551	12	2	F	35E	1218	101225	77S	76S	66S	53S	40S	27S	13S	0N	13N	27N
5552	13	2	F	6E	1218	120717	77S	76S	65S	53S	39S	26S	12S	0N	14N	27N
5553	1	2	F	24W	1218	120155	78S	77S	67S	54S	41S	28S	14S	0N	13N	27N
5554	2	2	F	53W	1218	155615	77S	78S	68S	55S	42S	28S	15S	1S	12N	26N
5555	3	2	F	82W	1218	175041	77S	78S	68S	56S	43S	29S	16S	2S	12N	25N
5556	4	2	F	109W	1218	194508	76S	77S	67S	55S	42S	28S	15S	1S	11N	25N
5557	5	2	F	137W	1218	213939	76S	77S	68S	55S	42S	29S	15S	2S	11N	24N
5558	6	2	W	166W	1218	233420	76S	77S	68S	55S	42S	29S	15S	2S	11N	24N
5559	7	2	W	165E	1219	012857	76S	77S	68S	55S	42S	29S	15S	2S	11N	24N
5560	8	2	W	137E	1219	032337	76S	77S	68S	55S	42S	29S	15S	1S	11N	25N
5561	9	2	W	108E	1219	051821	76S	77S	67S	55S	42S	28S	15S	1S	11N	25N
5562	10	1	W	79E	1219	071308	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N
5563	11	2	F	51E	1219	090757	76S	77S	67S	54S	41S	27S	14S	0N	12N	26N
5564	12	2	F	22E	1219	110250	77S	76S	66S	53S	40S	27S	13S	0N	13N	27N
5565	1	2	F	7W	1219	125746	77S	76S	65S	52S	39S	26S	12S	1N	14N	28N
5566	2	2	F	35W	1219	145226	77S	76S	65S	52S	39S	26S	12S	0N	14N	27N
5567	3	2	F	64W	1219	164650	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N
5568	4	2	F	93W	1219	184116	77S	77S	66S	54S	41S	27S	14S	0N	12N	26N
5569	5	2	F	121W	1219	203546	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N
5570	6	2	F	150W	1219	223019	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N
5571	7	2	W	179W	1220	002447	76S	77S	68S	55S	42S	28S	15S	1S	11N	25N
5572	8	2	W	153E	1220	021926	76S	77S	67S	55S	42S	28S	15S	1S	11N	25N
5573	9	2	W	124E	1220	041408	76S	77S	67S	55S	42S	28S	15S	1S	11N	25N
5574	10	2	W	95E	1220	060852	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N
5575	11	2	F	67E	1220	080340	76S	77S	67S	54S	41S	27S	14S	0N	12N	26N
5576	12	2	F	38E	1220	095831	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N
5577	13	2	F	9E	1220	115325	77S	76S	65S	53S	39S	26S	12S	0N	14N	27N
5578	1	2	F	19W	1220	134804	77S	76S	65S	53S	40S	26S	13S	0N	13N	27N
5579	2	2	F	48W	1220	154227	77S	76S	66S	54S	40S	27S	14S	0N	13N	26N
5580	3	2	F	77W	1220	173652	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N
5581	4	2	F	105W	1220	193121	76S	77S	67S	55S	42S	28S	15S	1S	11N	25N
5582	5	2	F	134W	1220	212553	76S	77S	68S	55S	42S	29S	15S	1S	11N	25N
5583	6	2	F	163W	1220	232028	76S	77S	68S	55S	42S	29S	15S	2S	11N	24N
5584	7	2	W	169E	1221	011506	76S	77S	68S	55S	42S	29S	15S	2S	11N	24N
5585	8	2	W	140E	1221	030947	76S	77S	68S	55S	42S	29S	15S	1S	11N	25N
5586	9	2	W	111E	1221	050431	76S	77S	67S	55S	42S	28S	15S	1S	11N	25N
5587	10	2	W	83E	1221	065918	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N
5588	11	2	F	54E	1221	085409	76S	77S	66S	54S	41S	27S	14S	0N	13N	26N
5589	12	2	F	25E	1221	104902	77S	76S	66S	53S	40S	26S	13S	0N	13N	27N
5590	1	2	F	3W	1221	124359	77S	76S	65S	52S	39S	25S	12S	1N	14N	28N
5591	2	2	F	32W	1221	143838	77S	76S	65S	52S	39S	26S	12S	0N	14N	27N
5592	3	2	W	61W	1221	163301	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N
5593	4	2	F	89W	1221	182727	77S	77S	66S	54S	41S	27S	14S	0N	12N	26N
5594	5	2	F	118W	1221	202156	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N
5595	6	2	F	147W	1221	221628	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N
5596	7	2	W	175W	1222	001101	76S	77S	67S	55S	42S	28S	15S	1S	11N	25N
5597	8	2	W	156E	1222	020538	76S	77S	67S	55S	42S	28S	15S	1S	11N	25N
5598	9	2	W	127E	1222	040019	76S	77S	67S	55S	42S	28S	15S	1S	11N	25N
5599	10	2	W	99E	1222	055503	76S	77S	67S	55S	41S	28S	14S	1S	12N	25N
5600	11	2	W	70E	1222	074950	76S	77S	67S	54S	41S	27S	14S	0N	12N	26N
5601	12	2	F	40E	1222	094440	77S	77S	67S	54S	41S	28S	14S	1S	13N	26N
5602	13	2	F	11E	1222	113933	77S	77S	67S	54S	40S	27S	13S	0N	14N	27N
5603	1	2	F	17W	1222	133412	77S	77S	67S	54S	41S	27S	14S	0N	13N	27N
5604	2	2	F	46W	1222	152836	77S	77S	67S	55S	41S	28S	15S	1S	13N	25N
5605	3	2	W	74W	1222	172302	77S	77S	68S	55S	42S	29S	15S	2S	12N	25N
5606	4	2	F	103W	1222	191732	76S	78S	68S	56S	43S	29S	16S	2S	11N	25N
5607	5	2	F	132W	1222	211305	76S	77S	69S	56S	42S	29S	14S	3S	11N	24N
5608	6	2	F	160W	1222	230641	76S	77S	69S	56S	43S	29S	16S	3S	9N	24N
5609	7	2	W	171E	1223	010117	76S	78S	69S	56S	43S	30S	16S	3S	11N	24N
5610	8	2	W	143E	1223	025559	76S	78S	69S	56S	43S	30S	16S	3S	11N	25N
5611	9	2	W	114E	1223	045044	76S	79S	69S	56S	43S	29S	16S	2S	12N	25N
5612	10	2	W	85E	1223	064532	76S	78S	68S	55S	43S	29S	15S	2S	12N	25N
5613	11	2	F	56E	1223	084023	77S	77S	67S	54S	42S	28S	14S	1S	12N	26N
5614	12	2	F	27E	1223	103517	77S	77S	66S	54S	41S	27S	14S	0N	13N	27N
5615	1	2	F	2W	1223	123015	78S	76S	66S	53S	39S	26S	13S	1N	14N	27N

PASS	TRACK	C	S	ALON	MODA	HRMNSL	SUB SATELLITE POINT PICTURE LOCATION											
							LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT
5616	2	2	F	30W	1223	142455	78S	77S	66S	53S	40S	27S	13S	1N	14N	27N	41N	54N
5617	3	2	W	59W	1223	161918	78S	77S	67S	54S	39S	27S	14S	0N	13N	27N	40N	53N
5617	3	2	W	59W	1223	161918	78S	77S	67S	54S	39S	27S	14S	0N	13N	27N	40N	53N
5619	5	2	F	116W	1223	200812	77S	78S	68S	55S	42S	28S	15S	2S	12N	26N	39N	52N
5620	6	2	F	144W	1223	220244	77S	78S	68S	55S	42S	28S	15S	2S	12N	25N	38N	52N
5621	7	2	F	173W	1223	235719	76S	78S	68S	56S	42S	28S	16S	2S	12N	25N	38N	52N
5622	8	2	W	158E	1224	015157	77S	78S	68S	56S	43S	29S	15S	2S	12N	25N	38N	52N
5623	9	2	W	129E	1224	034658	76S	77S	68S	55S	42S	28S	15S	2S	12N	25N	38N	52N
5624	10	2	W	101E	1224	054123	77S	78S	68S	55S	42S	28S	15S	2S	12N	26N	39N	52N
5625	11	2	W	72W	1224	073610	77S	78S	68S	54S	42S	28S	14S	1S	13N	26N	39N	52N
5626	12	2	F	43E	1224	093101	77S	77S	67S	54S	41S	28S	0N	13N	27N	40N	53N	
5627	13	2	F	15E	1224	112554	78S	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N
5628	1	2	F	14W	1224	132033	78S	77S	66S	53S	40S	27S	13S	0N	13N	26N		
5629	2	2	F	43W	1224	151455	77S	77S	67S	54S	43S	28S	14S	1S	13N	26N	39N	52N
5630	3	2	W	72W	1224	170921	77S	78S	68S	55S	43S	14S	1S	12S	12N	26N	39N	52N
5631	4	2	F	100W	1224	190350	77S	78S	68S	55S	43S	29S	15S	2S	12N	25N	38N	51N
5632	5	2	F	128W	1224	205822	76S	78S	68S	55S	43S	29S	15S	3S	11N	25N	38N	51N
5633	6	2	F	157W	1224	225257	76S	78S	68S	55S	43S	29S	15S	3S	11N	25N	38N	51N
5634	7	2	W	174E	1225	004735	76S	78S	68S	55S	43S	29S	15S	3S	11N	25N	38N	51N
5635	8	2	W	146E	1225	024216	76S	78S	68S	55S	43S	29S	15S	3S	11N	25N	38N	51N
5636	9	2	W	116E	1225	043701	76S	78S	68S	55S	43S	29S	15S	2S	12N	25N	38N	52N
5637	10	2	W	88E	1225	063148	77S	78S	68S	55S	43S	28S	15S	2S	12N	26N	39N	52N
5638	11	2	F	59E	1225	082638	77S	78S	67S	54S	41S	28S	14S	1S	13N	26N	39N	52N
5639	12	2	F	30E	1225	102132	78S	77S	67S	54S	40S	27S	13S	0N	14N	27N	41N	53N
5640	13	2	F	2E	1225	121629	78S	77S	66S	54S	39S	26S	12S	1N	15N	28N	42N	54N
5641	1	2	F	27W	1225	141110	78S	77S	66S	53S	39S	26S	13S	1N	13N	27N	41N	54N
5642	2	2	F	56W	1225	160533	77S	77S	66S	54S	40S	27S	14S	0N	13N	27N	40N	53N
5643	3	2	F	84W	1225	180000	77S	77S	67S	54S	41S	28S	16S	1S	13N	27N	39N	53N
5644	4	2	F	113W	1225	195430	77S	78S	67S	54S	41S	27S	14S	1S	13N	26N	39N	52N
5645	5	2	F	141W	1225	214903	77S	78S	68S	55S	42S	28S	14S	1S	12N	26N	39N	52N
5646	6	2	W	170W	1225	234345	77S	78S	68S	54S	41S	28S	14S	1S	12N	26N	39N	52N
5647	7	2	W	161E	1226	013824	77S	77S	67S	54S	41S	28S	14S	1S	13N	26N	39N	52N
5648	8	2	W	123E	1226	033306	77S	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N
5649	9	2	W	104E	1226	052752	77S	77S	67S	54S	41S	28S	14S	0N	13N	27N	40N	53N
5650	10	2	W	77E	1226	072240	77S	76S	65S	53S	39S	26S	12S	0N	14N	27N	41N	54N
5651	11	2	F	48E	1226	091731	77S	75S	65S	52S	39S	25S	12S	1N	14N	28N	41N	54N
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5653	1	2	F	9W	1226	130705	78S	75S	64S	51S	38S	25S	11S	1N	15N	28N	41N	54N
5654	2	2	F	38W	1226	150128	77S	76S	65S	52S	39S	25S	12S	1N	14N	27N	41N	54N
5655	3	2	W	66W	1226	165553	77S	76S	65S	53S	40S	26S	13S	0N	13N	27N	40N	53N
5656	4	2	F	97W	1226	185022	77S	77S	67S	54S	41S	28S	14S	1S	13N	26N	39N	52N
5657	5	2	F	124W	1226	204454	77S	76S	66S	54S	40S	27S	13S	0N	13N	26N	39N	52N
5658	6	2	F	154W	1226	223929	77S	78S	68S	53S	40S	27S	13S	0N	13N	27N	40N	53N
5659	7	2	W	179E	1227	003406	77S	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N
5660	8	2	W	150E	1227	022847	77S	77S	66S	54S	40S	27S	13S	0N	13N	26N	39N	52N
5661	9	2	W	122E	1227	042331	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N	40N	53N
5662	10	2	W	93E	1227	061818	77S	76S	66S	53S	40S	26S	13S	0N	13N	27N	40N	53N
5663	11	2	W	64E	1227	081309	77S	76S	65S	52S	39S	26S	12S	1N	14N	28N	41N	54N
5664	12	2	F	36E	1227	100802	78S	75S	64S	52S	38S	25S	11S	1N	15N	28N	42N	55N
5665	13	2	F	7E	1227	120258	78S	75S	64S	51S	37S	24S	10S	2N	16N	29N	43N	55N
5666	1	2	F	22W	1227	135738	78S	75S	64S	51S	38S	24S	11S	2N	15N	29N	42N	55N
5667	2	2	F	50W	1227	155158	78S	75S	64S	52S	39S	25S	12S	1N	14N	28N	41N	54N
5668	3	2	W	81W	1227	174622	78S	77S	67S	54S	42S	28S	14S	1S	12N	26N	39N	52N
5669	4	2	F	109W	1227	194048	77S	77S	67S	54S	41S	27S	14S	1S	13N	26N	39N	52N
5670	5	2	F	138W	1227	213518	77S	77S	67S	54S	41S	28S	14S	1S	12N	26N	39N	52N
5671	6	2	F	165W	1227	232952	77S	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N
5672	7	2	W	166E	1228	012428	76S	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N
5673	8	2	W	138E	1228	031907	76S	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N
5674	9	2	W	109E	1228	051350	77S	77S	66S	54S	40S	27S	13S	0N	13N	26N	39N	52N
5675	10	2	W	80E	1228	070835	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N	40N	53N
5676	11	2	F	52E	1228	090323	77S	76S	65S	53S	40S	26S	13S	0N	13N	27N	40N	53N
5677	12	2	F	23E	1228	105815	77S	76S	65S	52S	39S	25S	12S	1N	14N	28N	41N	54N
5678	1	2	F	6W	1228	125309	78S	75S	64S	51S	38S	25S	11S	2N	15N	28N	42N	55N
5679	2	2	F	34W	1228	144749	78S	75S	64S	51S	38S	25S	11S	1N	15N	28N	41N	54N
5680	3	2	F	63W	1228	164212	77S	76S	65S	52S	39S	26S	12S	0N	14N	27N	40N	53N
5681	4	2	F	92W	1228	183638	77S	76S	66S	53S	40S	26S	13S	0N	13N	27N	40N	53N
5682	5	2	F	120W	1228	203107	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N	39N	52N
5683	6	2	F	149W	1228	222540	77S	76S	66S	54S	40S	27S	14S	0N	12N	26N	39N	52N
5684	7	2	W	178W	1229	002014	76S	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N
5685	8	2	W	154E	1229	021452	76S	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N
5686	9	2	W	125E	1229	040934	77S	77S	66S	54S	40S	27S	14S	0N	12N	26N	39N	52N
5687	10	2	W	96E	1229	060418	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N	40N	53N
5688	11	2	F	68E	1229	075906	77S	76S	66S	53S	40S	26S	13S	0N	13N	27N	40N	53N
5689	12	2	F	39E	1229	095357	77S	76S	65S	52S	39S	26S	12S	0N	14N	27N	41N	54N
5690	13	2	F	10E	1229	114850	78S	75S	64S	52S	38S	25S	11S	1N	15N	28N	42N	55N

PASS TRACK	L	S	ALON	MOA	HRMNS	SUB-SATELLITE POINT PICTURE LOCATION												
						LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	LAT	
5691	1	2	F	18W	1229	134329	78S	75S	64S	52S	39S	25S	12S	1N	14N	28N	41N	54N
5692	2	2	F	47W	1229	153751	77S	76S	65S	53S	39S	26S	13S	0N	13N	27N	40N	53N
5693	3	2	W	76W	1229	173217	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N	39N	52N
5694	4	2	F	104W	1229	192646	77S	77S	66S	54S	40S	27S	14S	0N	12N	26N	39N	52N
5695	5	2	F	133W	1229	212118	76S	77S	67S	54S	41S	27S	14S	0N	12N	25N	39N	52N
5696	6	2	F	162W	1229	231553	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N
5697	7	2	W	170E	1230	011030	76S	77S	67S	54S	41S	28S	14S	1S	12N	25N	39N	52N
5698	8	2	W	141E	1230	030512	76S	77S	67S	54S	41S	27S	14S	0N	12N	26N	39N	52N
5699	9	2	W	112E	1230	045956	76S	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N
5700	10	2	W	84E	1230	065443	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N	40N	53N
5701	11	2	F	55E	1230	084934	77S	76S	65S	53S	39S	26S	13S	0N	14N	27N	40N	53N
5702	12	2	F	26E	1230	104427	77S	76S	65S	52S	39S	25S	12S	1N	14N	28N	41N	54N
5703	1	2	F	2W	1230	123924	78S	75S	64S	51S	38S	24S	11S	2N	15N	29N	42N	55N
5704	2	2	F	31W	1230	143403	78S	75S	64S	51S	38S	25S	11S	1N	15N	28N	41N	54N
5705	3	2	W	60W	1230	162825	77S	76S	65S	52S	39S	25S	12S	0N	14N	27N	41N	53N
5706	4	2	F	88W	1230	182249	77S	76S	65S	53S	40S	26S	13S	0N	13N	27N	40N	53N
5707	5	2	F	117W	1230	201717	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N	39N	52N
5708	6	2	F	146W	1230	221148	77S	77S	66S	54S	41S	27S	14S	0N	12N	26N	39N	52N
5709	7	2	W	174W	1231	000622	76S	77S	67S	54S	41S	27S	14S	0N	12N	26N	39N	52N
5710	8	2	W	157E	1231	020059	76S	77S	67S	54S	41S	27S	14S	0N	12N	25N	39N	52N
5711	9	2	W	128E	1231	035539	76S	77S	67S	54S	41S	27S	14S	0N	12N	26N	39N	52N
5712	10	2	W	100E	1231	055022	77S	77S	66S	54S	40S	27S	14S	0N	12N	26N	39N	52N
5713	11	2	F	71E	1231	074509	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N	40N	53N
5714	12	2	F	42E	1231	093958	77S	76S	65S	53S	39S	26S	13S	0N	14N	27N	40N	53N
5715	13	2	F	14E	1231	113451	77S	76S	65S	52S	39S	25S	12S	1N	14N	28N	41N	54N
5716	1	2	F	15W	1231	132946	78S	75S	64S	51S	38S	24S	11S	2N	15N	29N	42N	55N
5717	2	2	F	44W	1231	152426	78S	75S	64S	51S	38S	25S	11S	1N	15N	28N	41N	54N
5718	3	2	W	72W	1231	171848	77S	76S	65S	52S	39S	26S	12S	0N	14N	27N	40N	53N
5719	4	2	F	103W	1231	191314	77S	77S	67S	54S	41S	28S	14S	0N	13N	27N	40N	53N
5720	5	2	F	130W	1231	210743	77S	76S	66S	53S	40S	27S	13S	0N	13N	26N	39N	52N
5721	6	2	F	160W	1231	230215	77S	77S	67S	54S	42S	28S	14S	1S	12N	26N	39N	52N



TABLE 1

## TRACK TABLE FOR ESSA 3

<u>Range of Ascending Nodes</u>	<u>Track No.</u>
0 - 28.7W	1
28.7W - 57.4W	2
57.4W - 86.1W	3
86.1W - 114.8W	4
114.8W - 143.5W	5
143.5W - 172.2W	6
172.2W - 159.1E	7
159.1E - 130.4E	8
130.4E - 101.7E	9
101.7E - 73.0E	10
73.0E - 44.3E	11
44.3E - 15.6E	12
15.6E - 0	13

Difference between Tracks - 28.7°

TABLE 2

## TRACK TABLE FOR ESSA 5

<u>Range of Ascending Nodes</u>	<u>Track No.</u>
0 - 28.4W	1
28.4W - 56.8W	2
56.8W - 85.2W	3
85.2W - 113.6W	4
113.6W - 142.0W	5
142.0W - 170.4W	6
170.4W - 161.2E	7
161.2E - 132.8E	8
132.8E - 104.4E	9
104.4E - 76.0E	10
76.0E - 47.6E	11
47.6E - 19.2E	12
19.2E - 0	13

Difference between Tracks - 28.4°

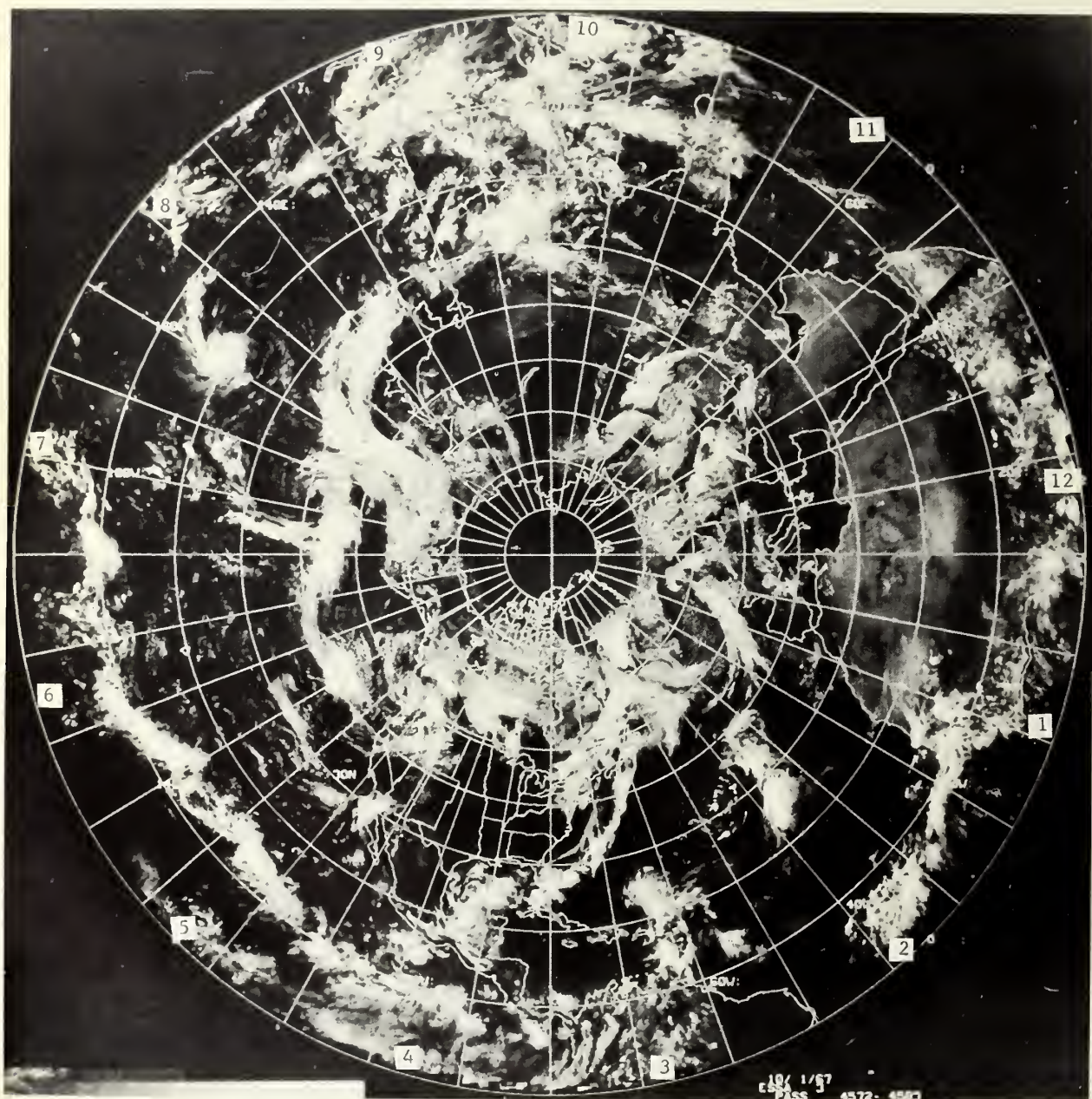
Day to day variations and irregularities which result in improper locating or display of the data are apparent in this catalog. At present, inadequate computer facilities prevent any effort to reformat the mosaic image on an after-the-fact basis. Those days with obvious problems are listed below in chronological order:

<u>DATE</u>	<u>REASON</u>
10/10/67	Missing data lines over N. E. states.
10/22/67	Some calibration errors.
10/23/67	Some calibration errors - see Africa.
10/25/67	Went back to old program to investigate holes in data.
11/ 8/67	Horizontal streaks due to computer error (disk).
11/17/67	No product due to computer failure.
11/18/67	No product due to computer failure.
12/ 5/67	One blank frame.
12/19/67	One noisy Pass - 40W.
12/20/67	Two noisy Passes - 40W - 100W.
12/23/67	One Pass missing - 100W.
12/26/67	Gap at Africa, program error.
12/28/67	One noisy frame.

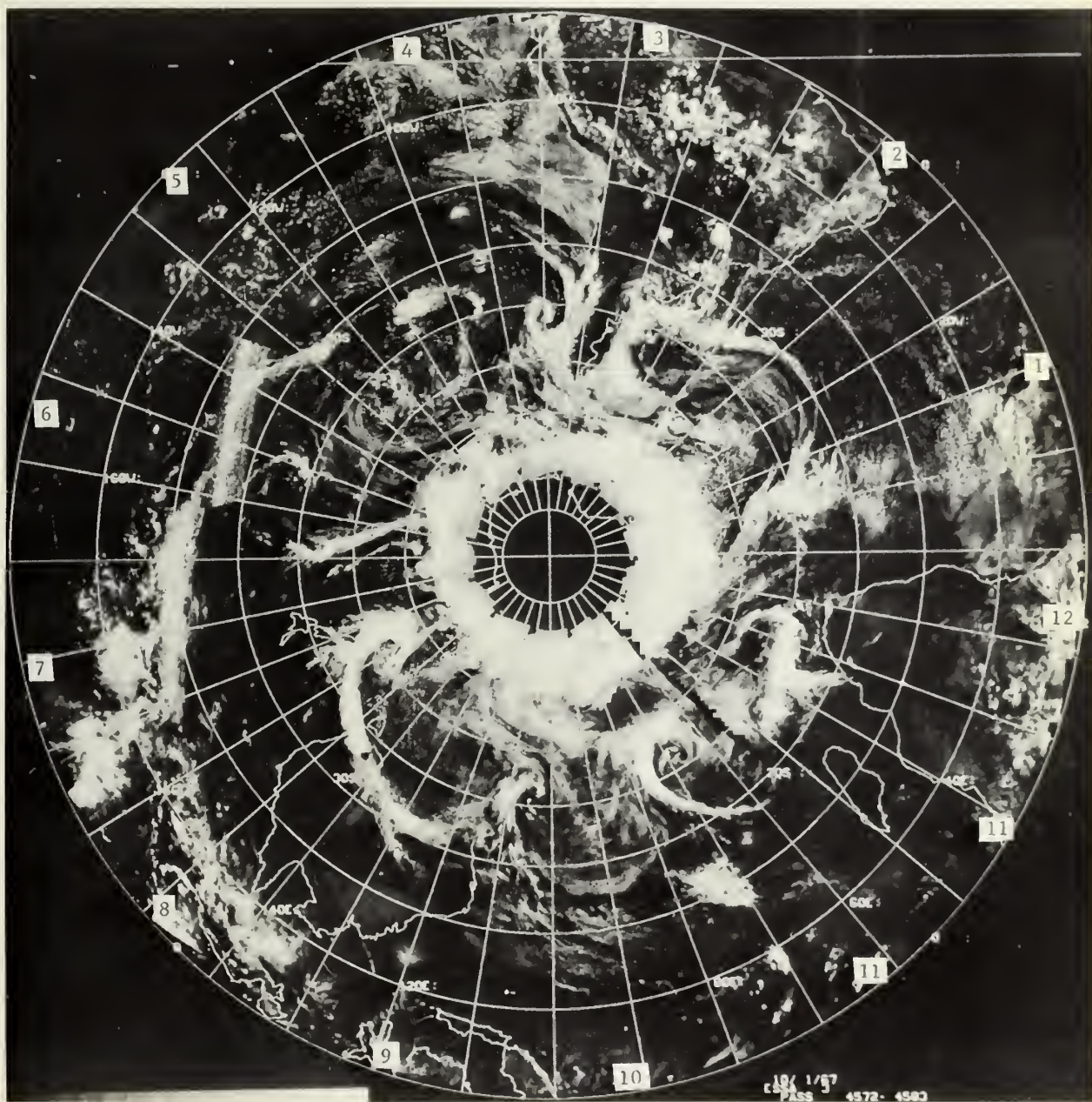
- 1) ESSA 5 cameras were more responsive than ESSA 3 cameras, therefore the data suddenly appears more profuse and brighter.
- 2) Tape recorder problems aboard the ESSA 5 satellite prevented processing of the first frame of data of each readout sequence, thus affecting the computer logic to locate the data in the expected sequence.

Some other inconsistencies are related to photographic and printing problems. Original film negatives may not exhibit these problems. Any comments pertaining to the Catalog of Meteorological Satellite Data - ESSA 3 and ESSA 5 Television Cloud Photography, will be welcomed and should be addressed to:

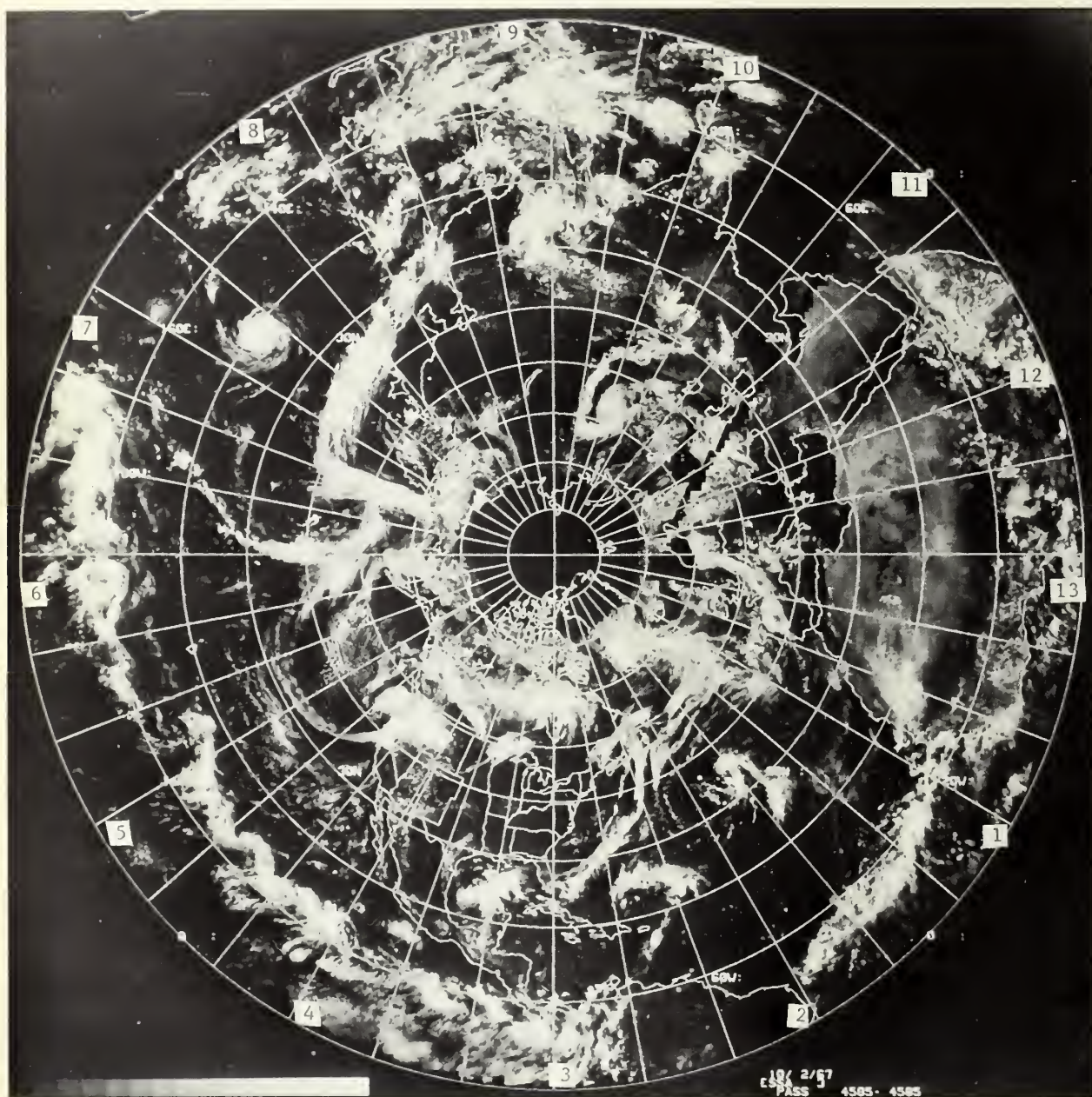
Chief, Documentation Section  
National Environmental Satellite Center  
Environmental Science Services Administration  
Washington, D. C. 20233

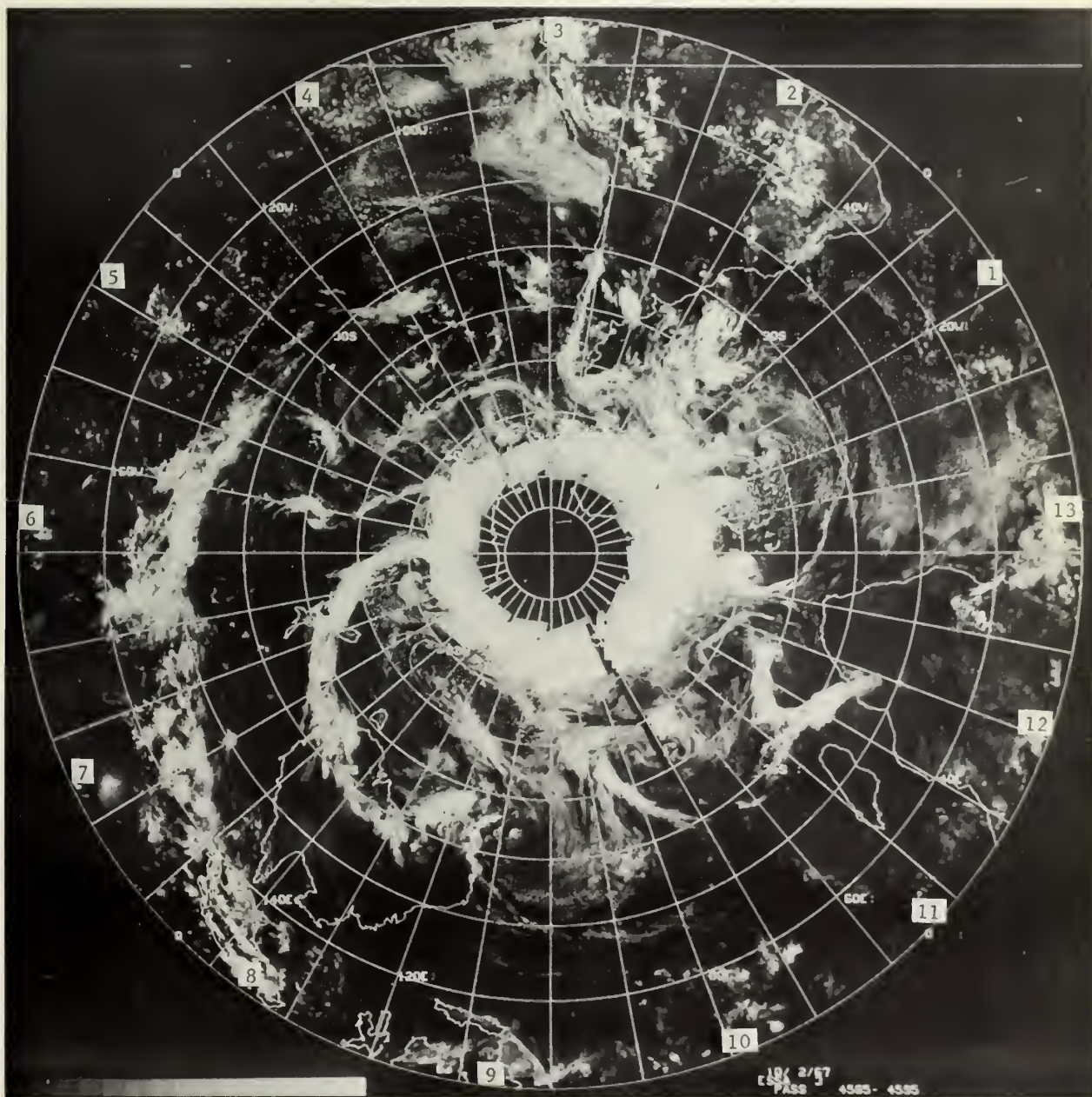




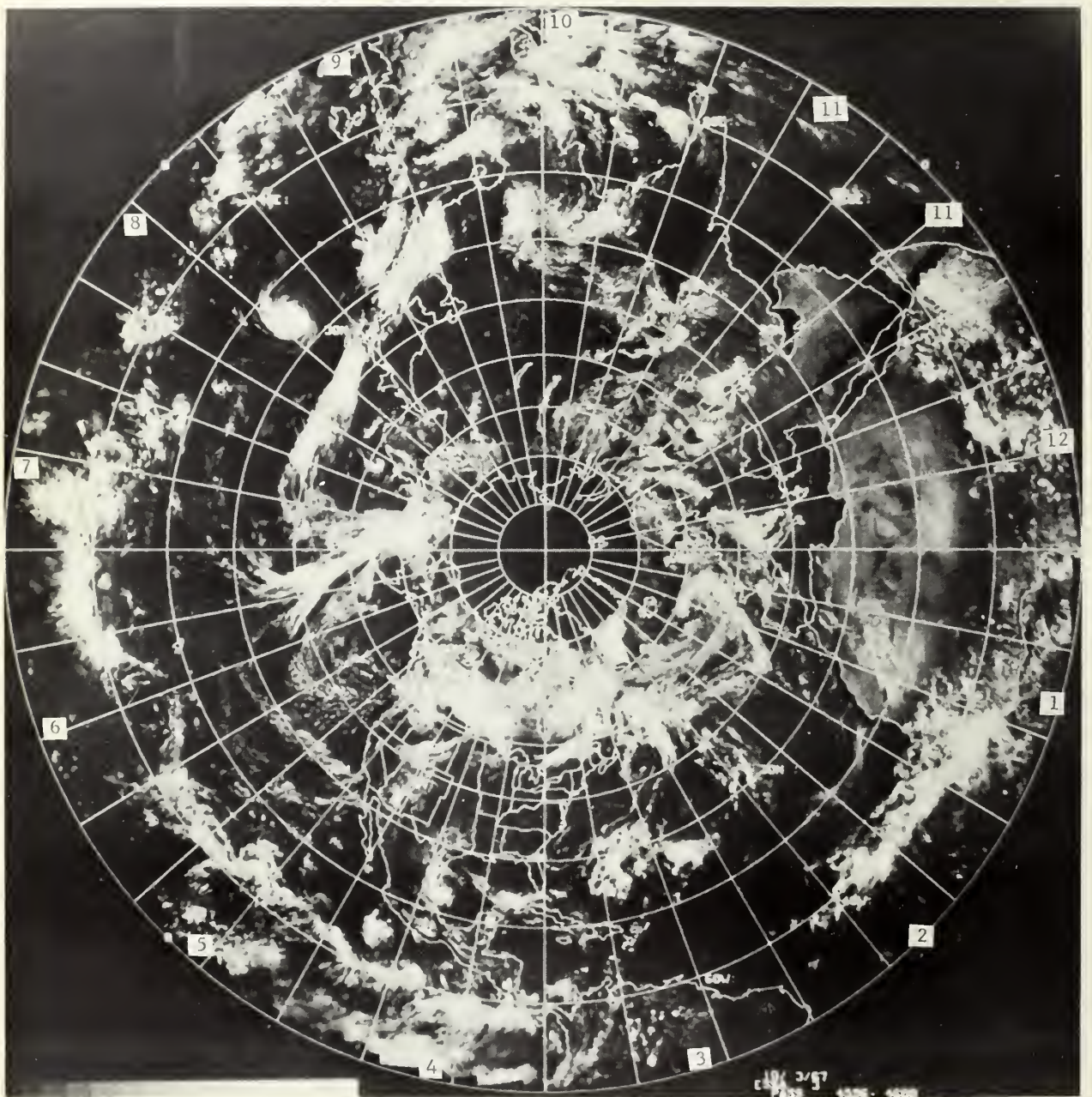




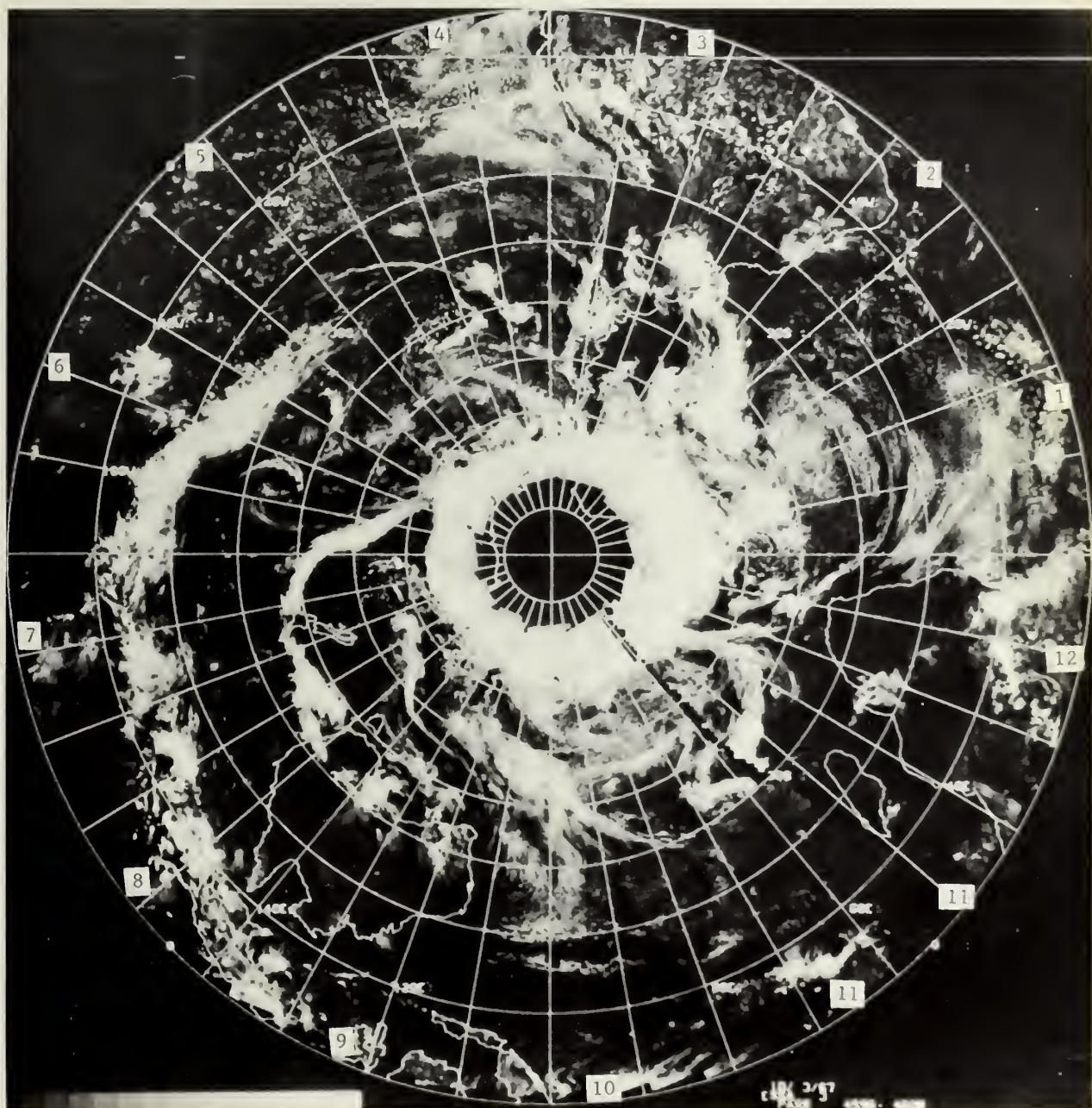




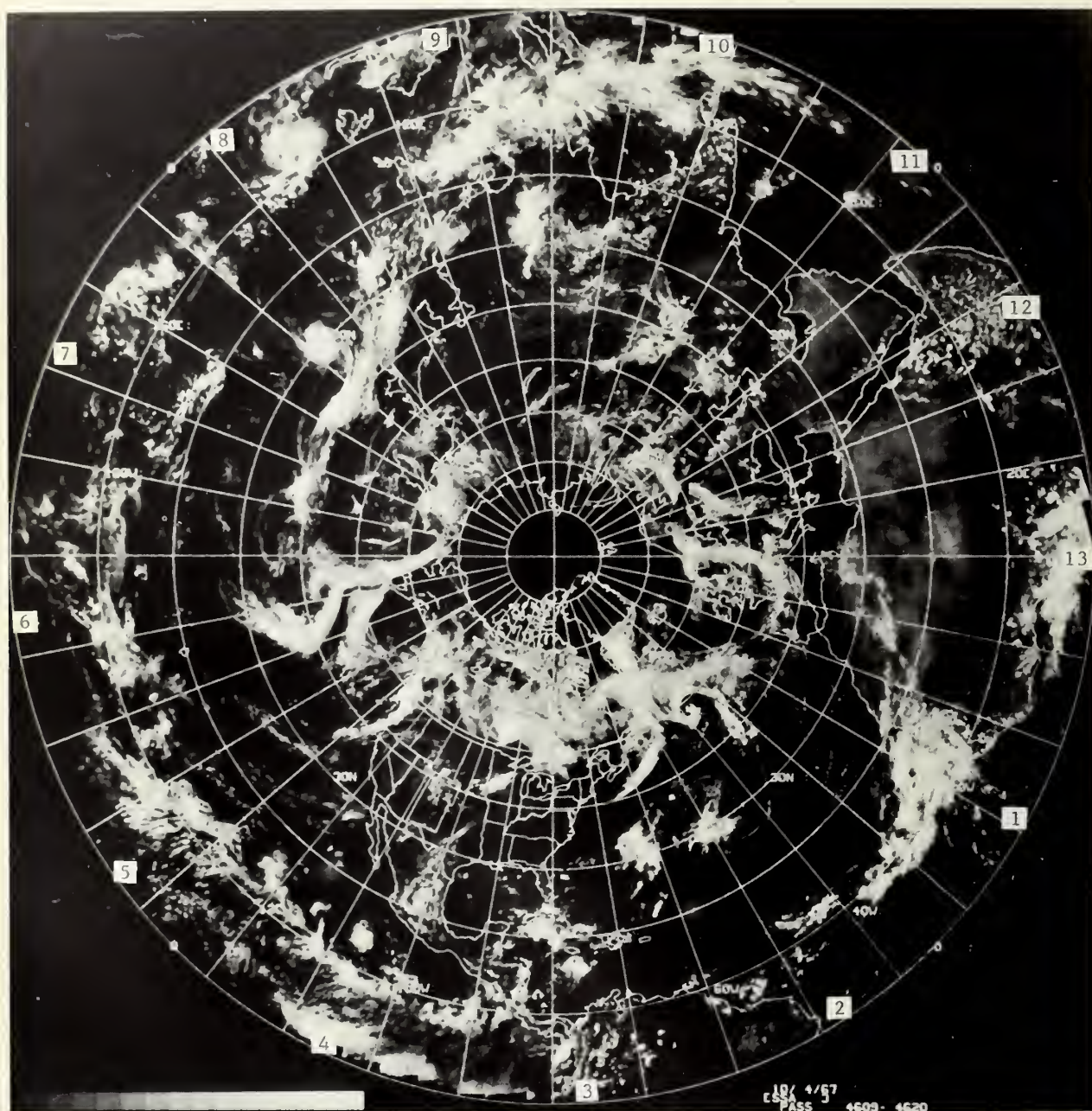


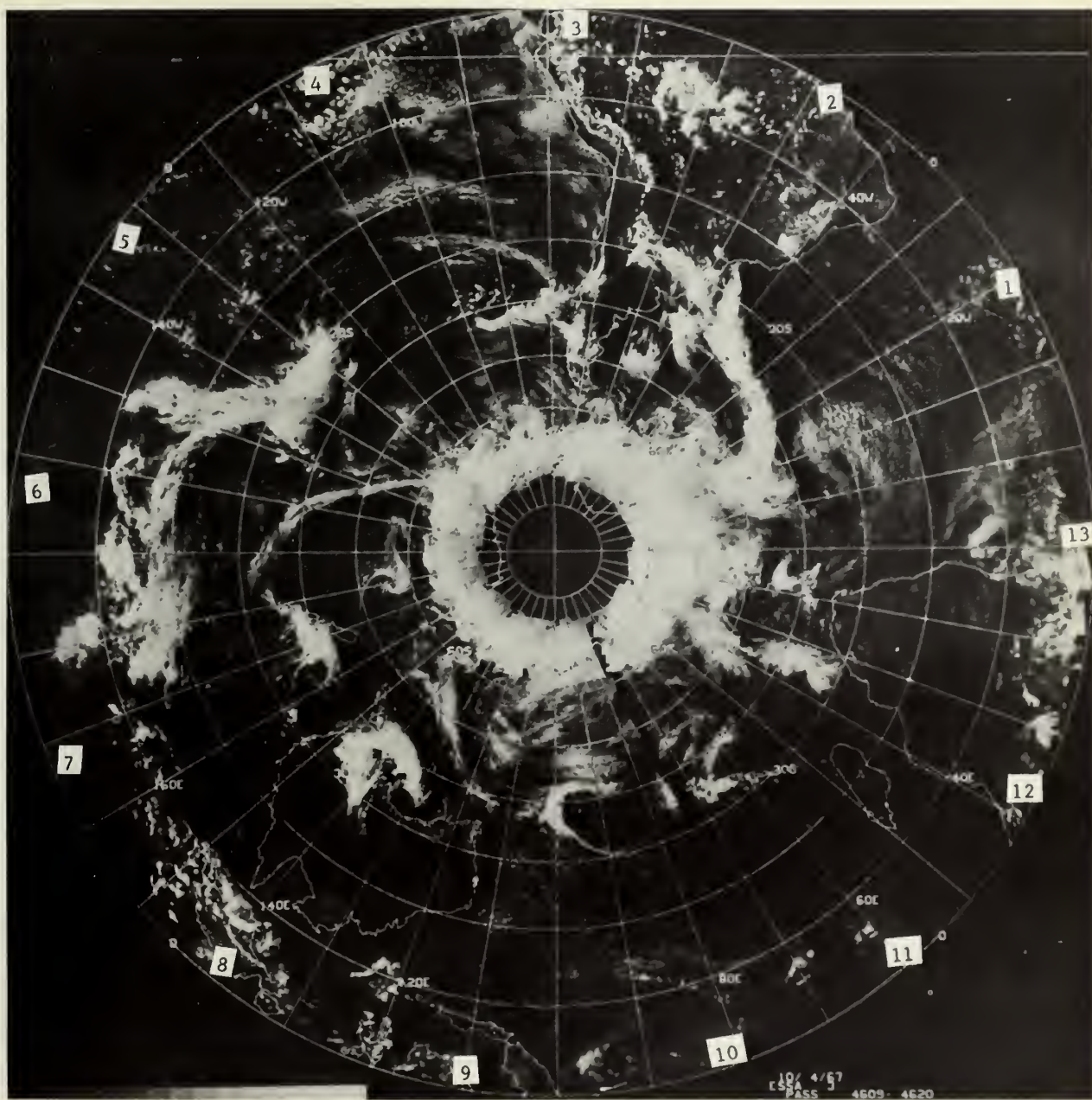




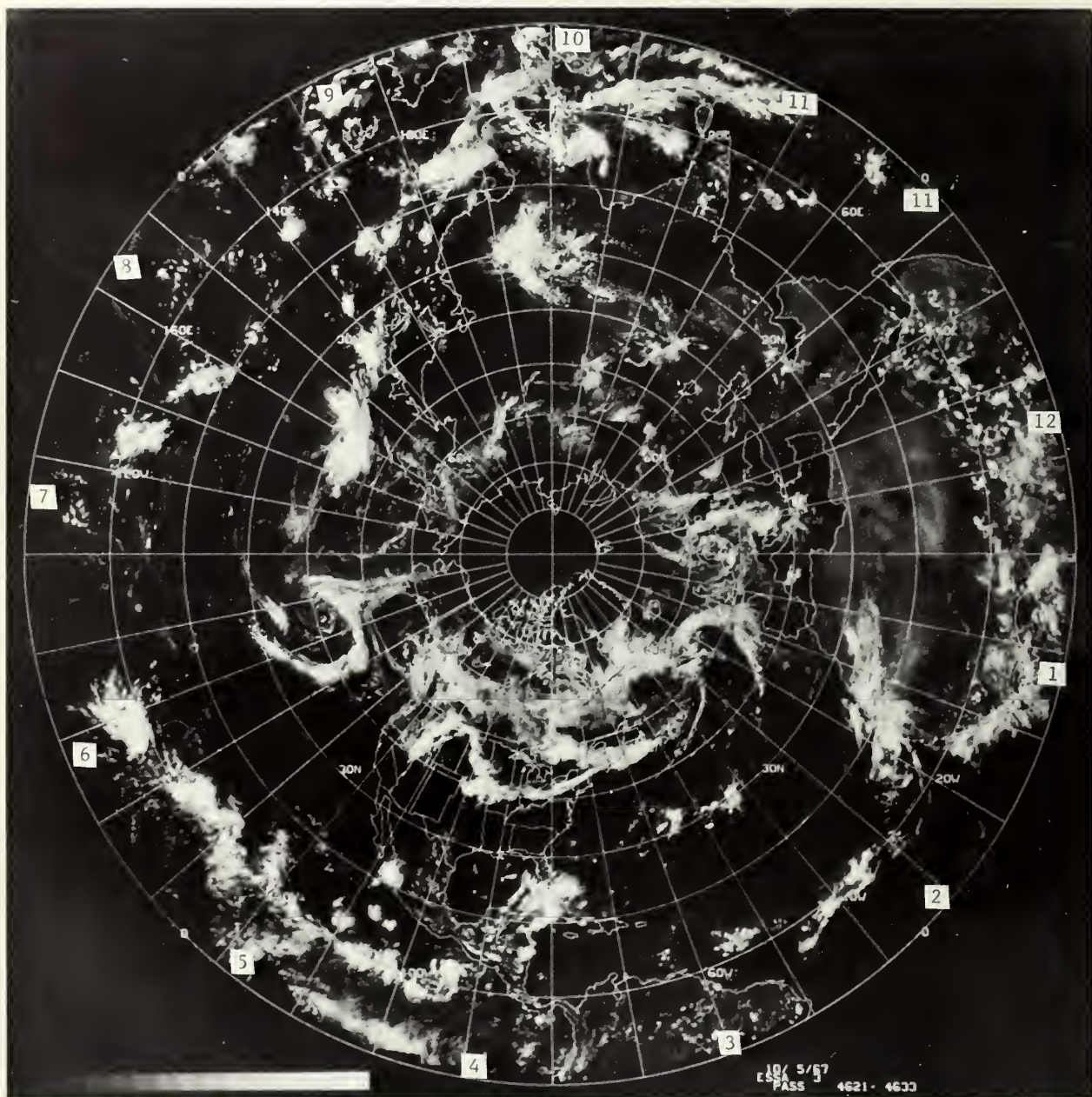


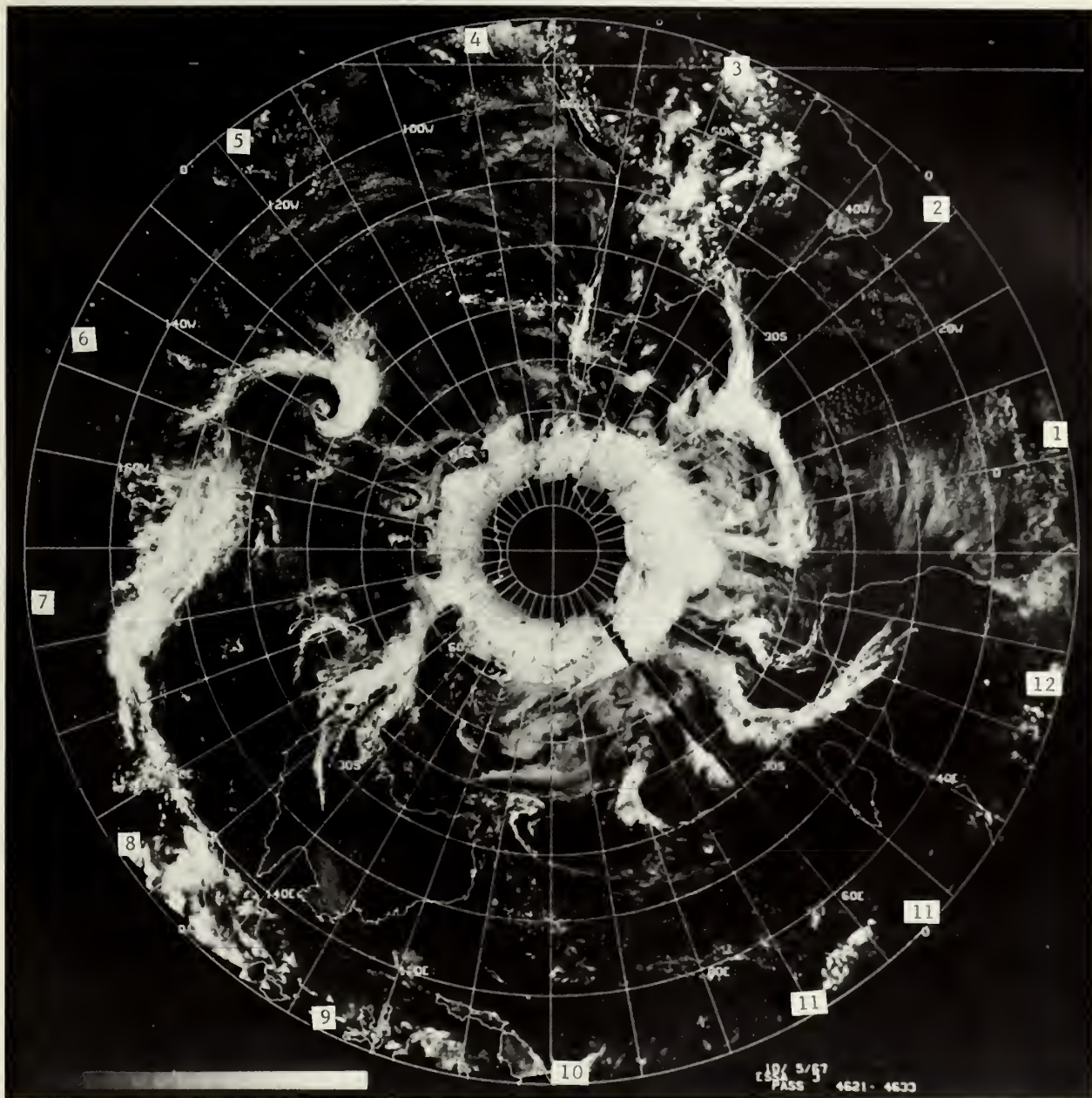




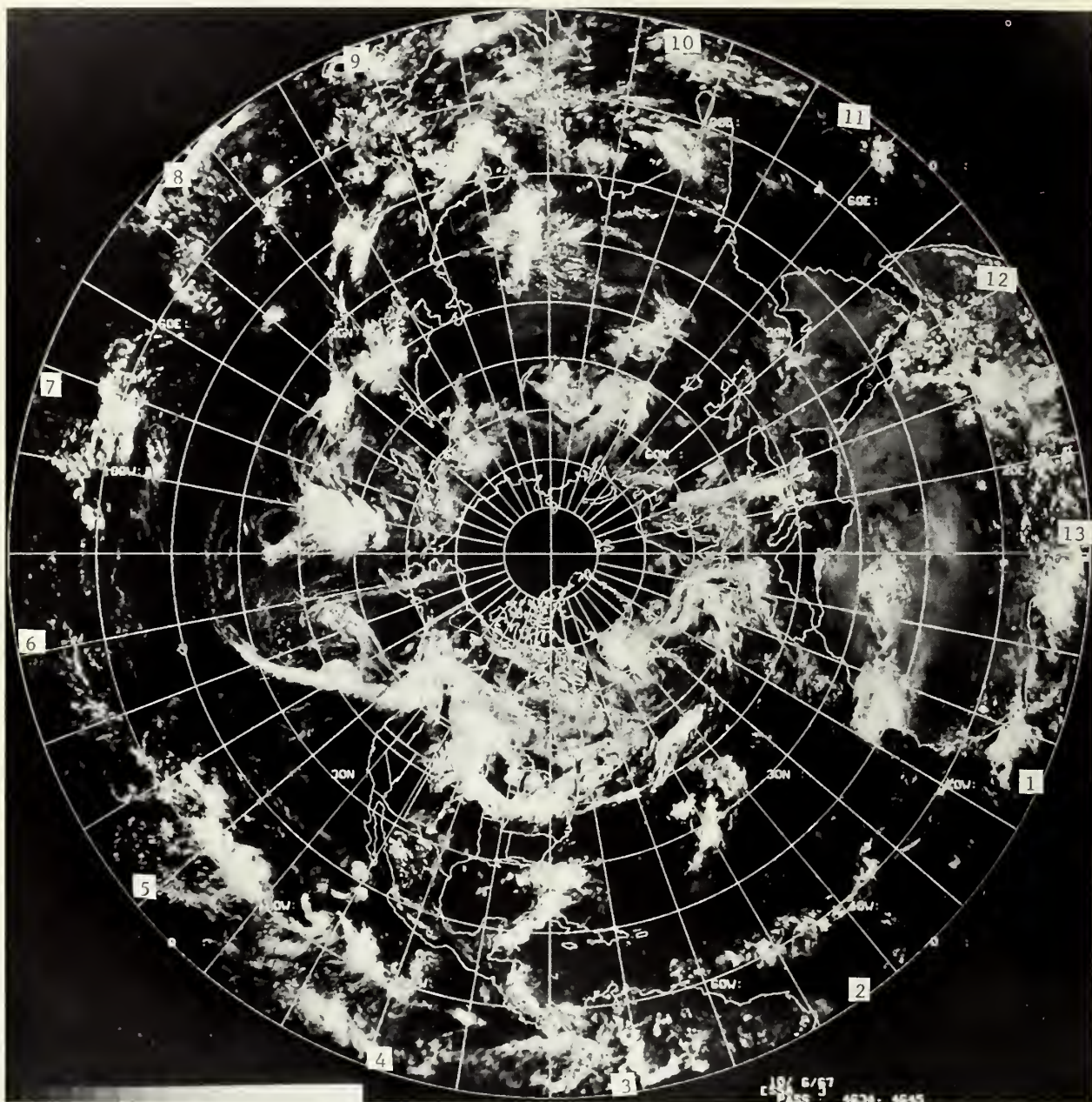




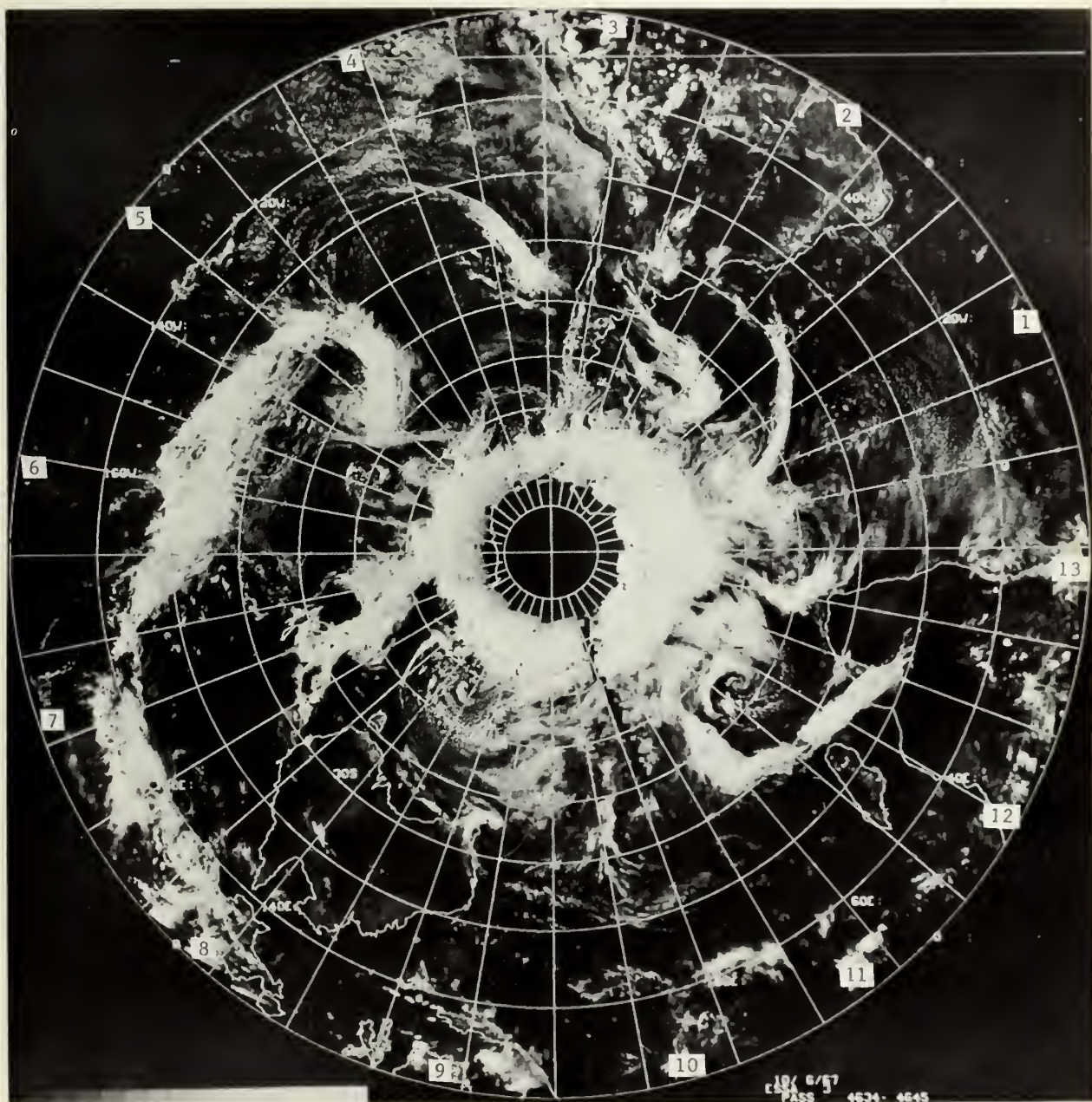




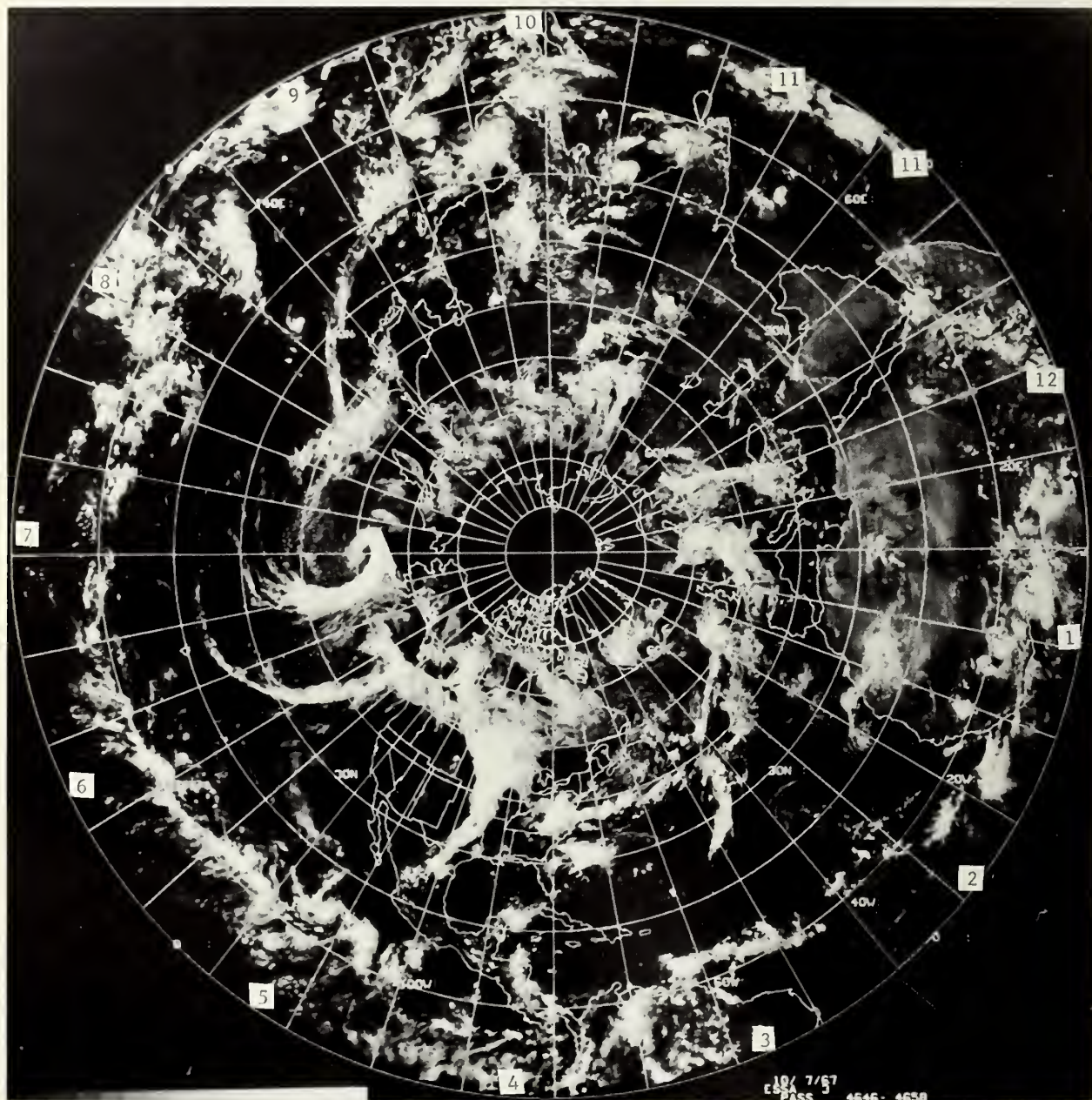


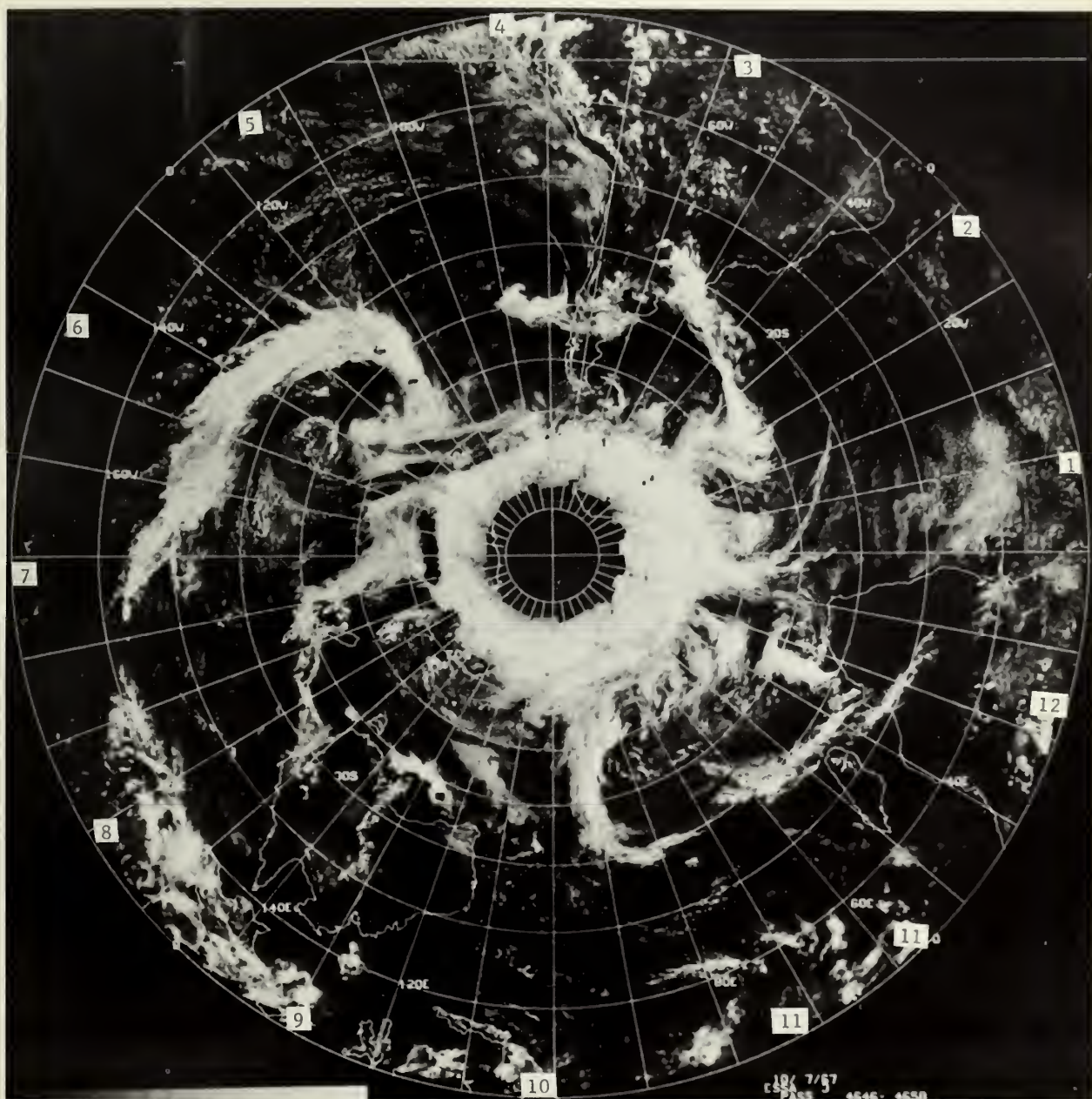




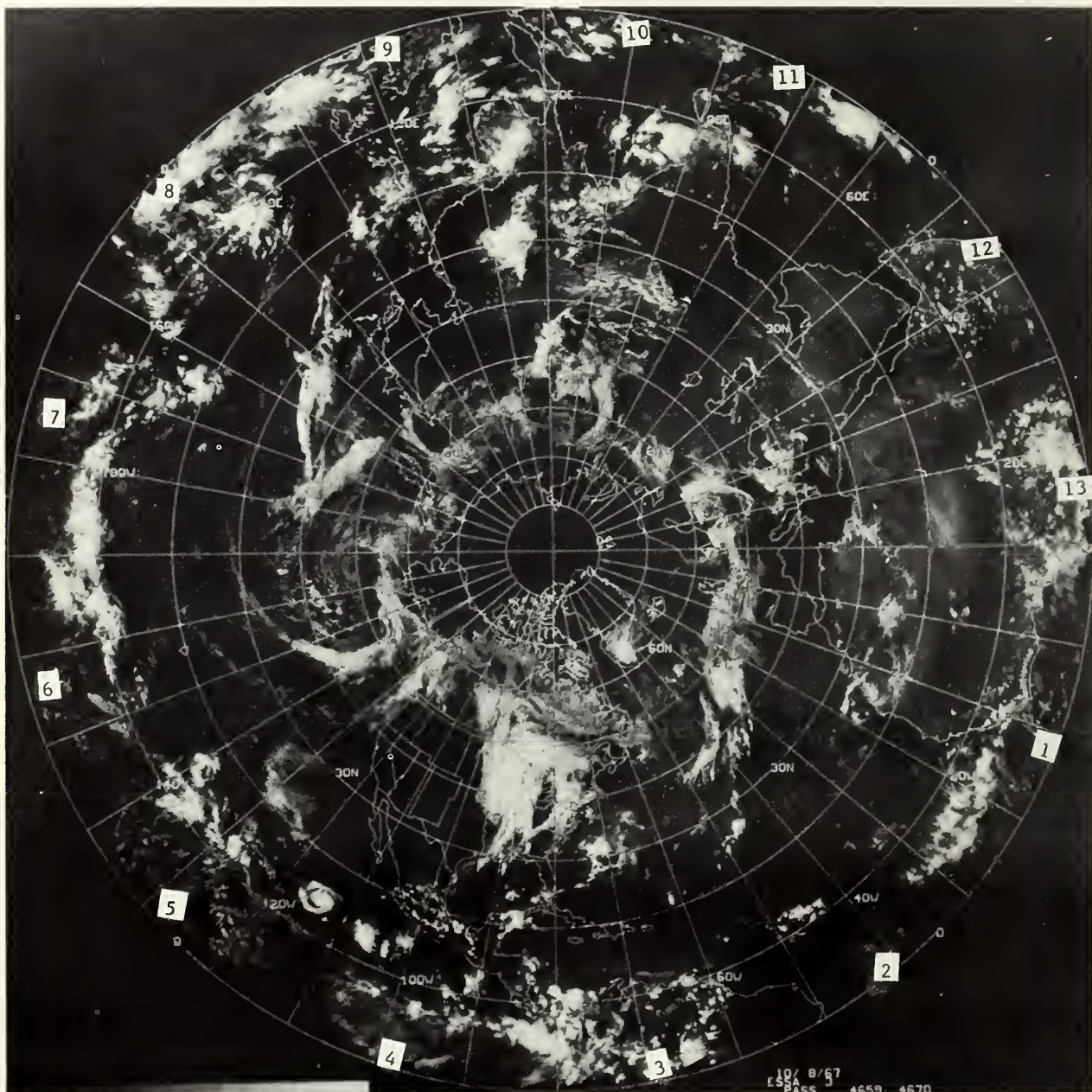


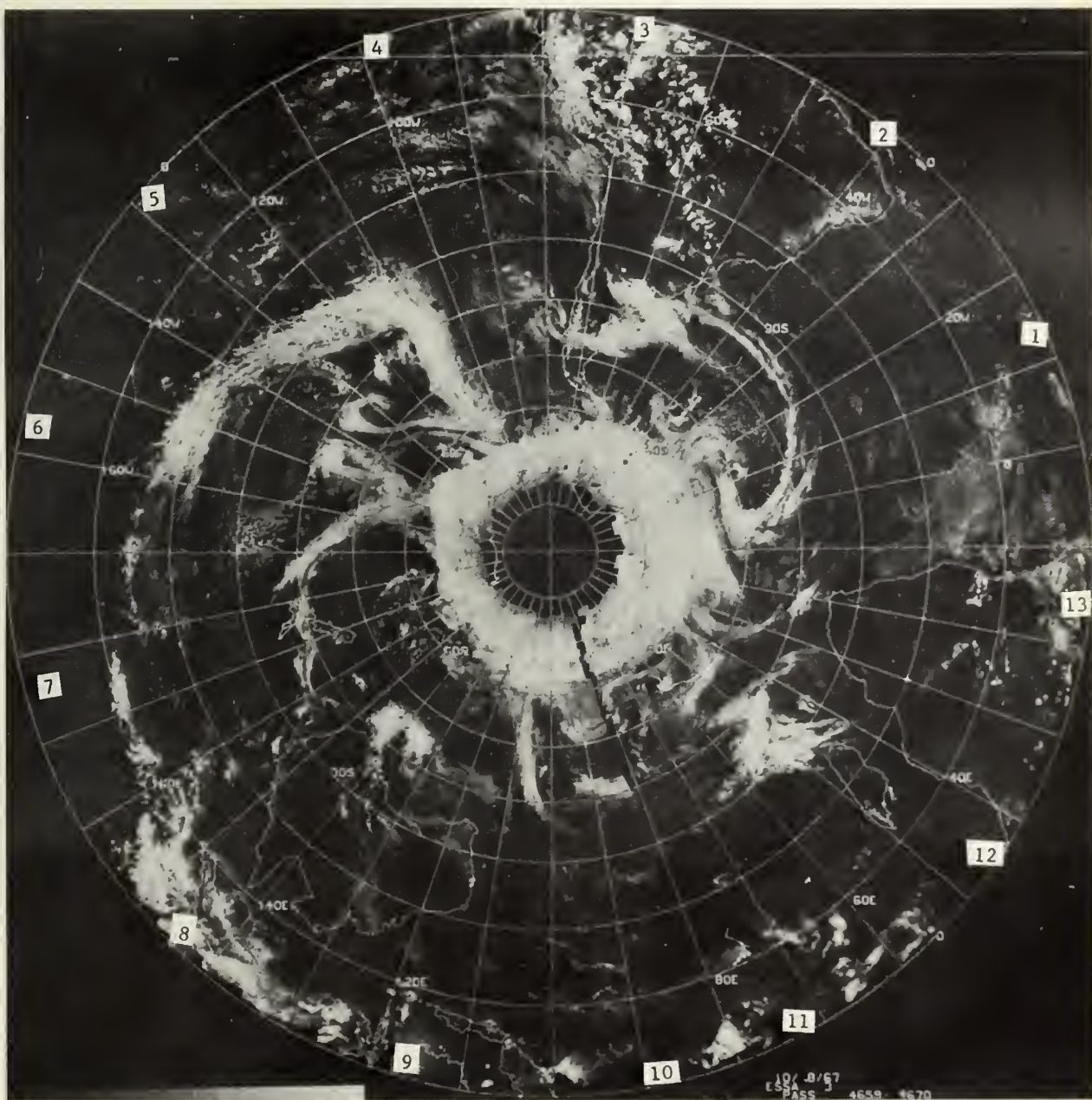




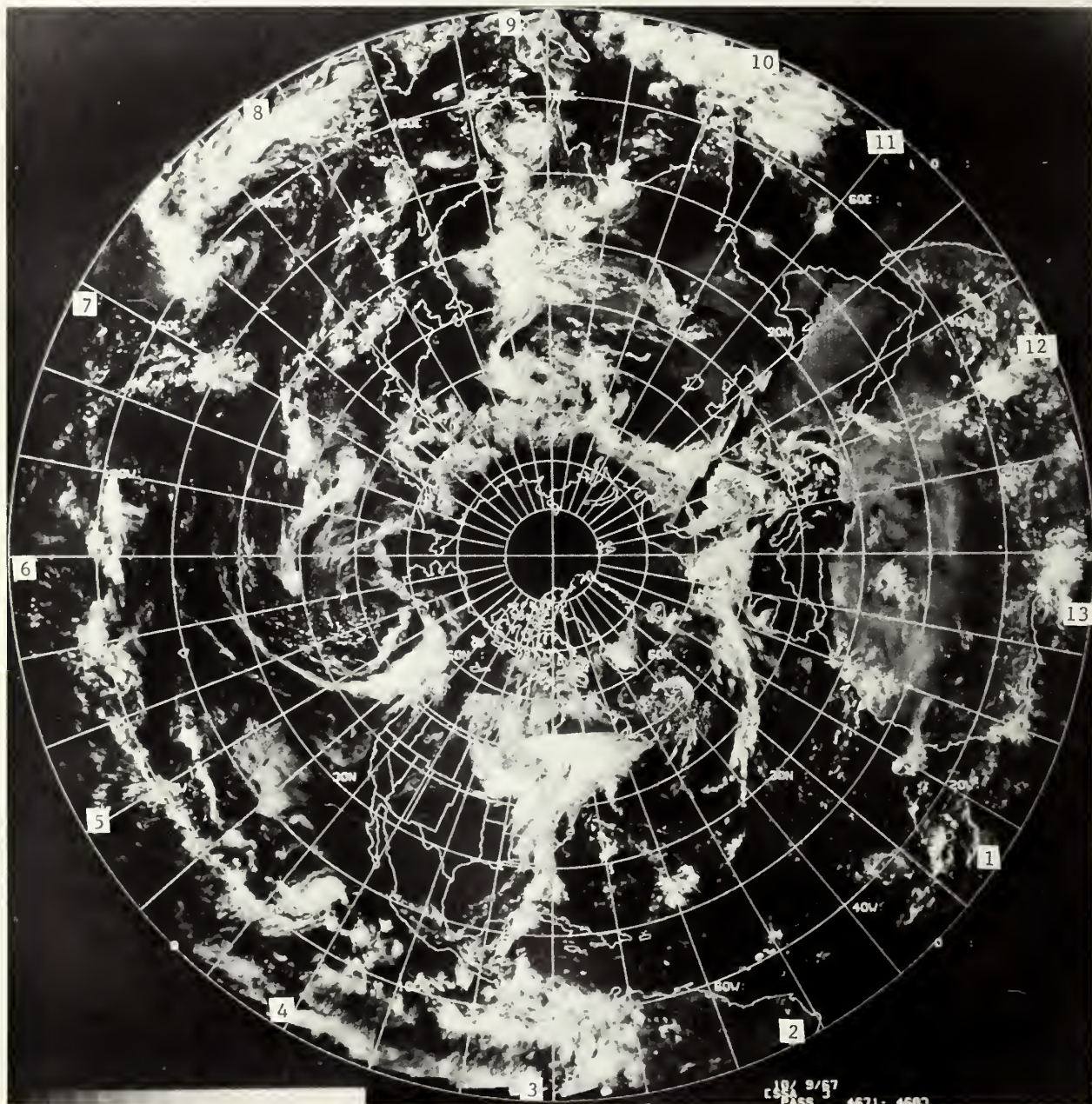




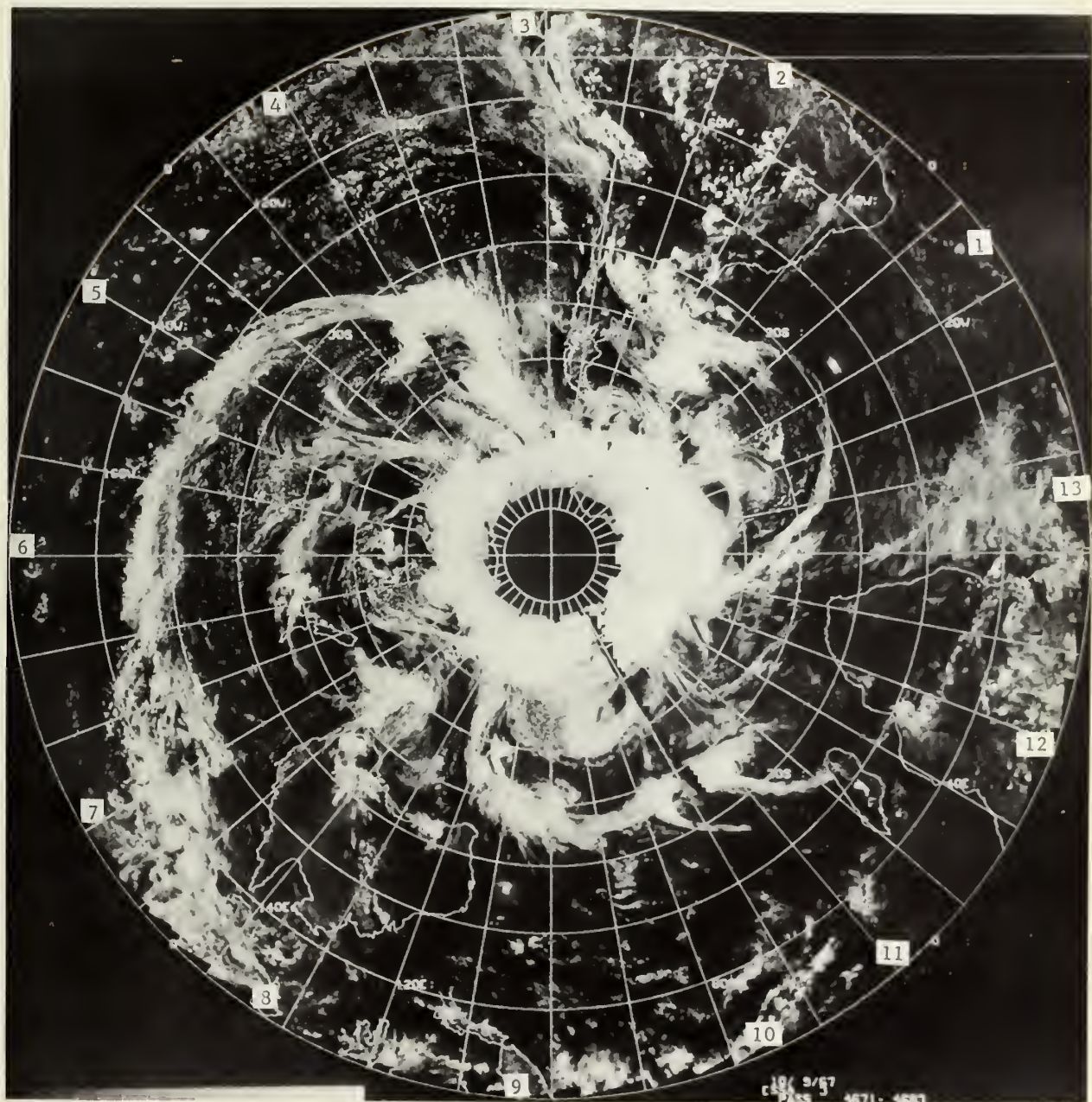




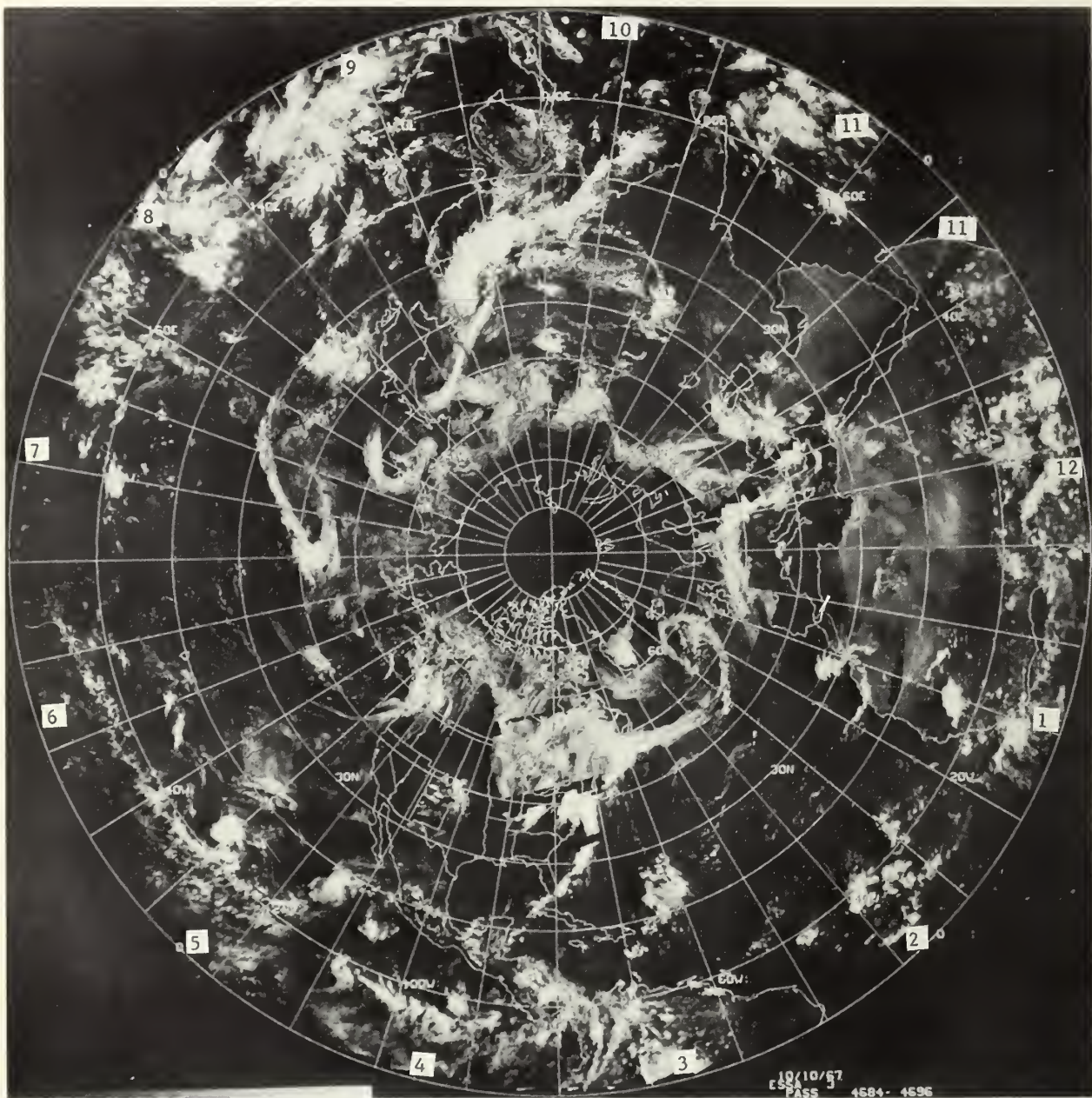


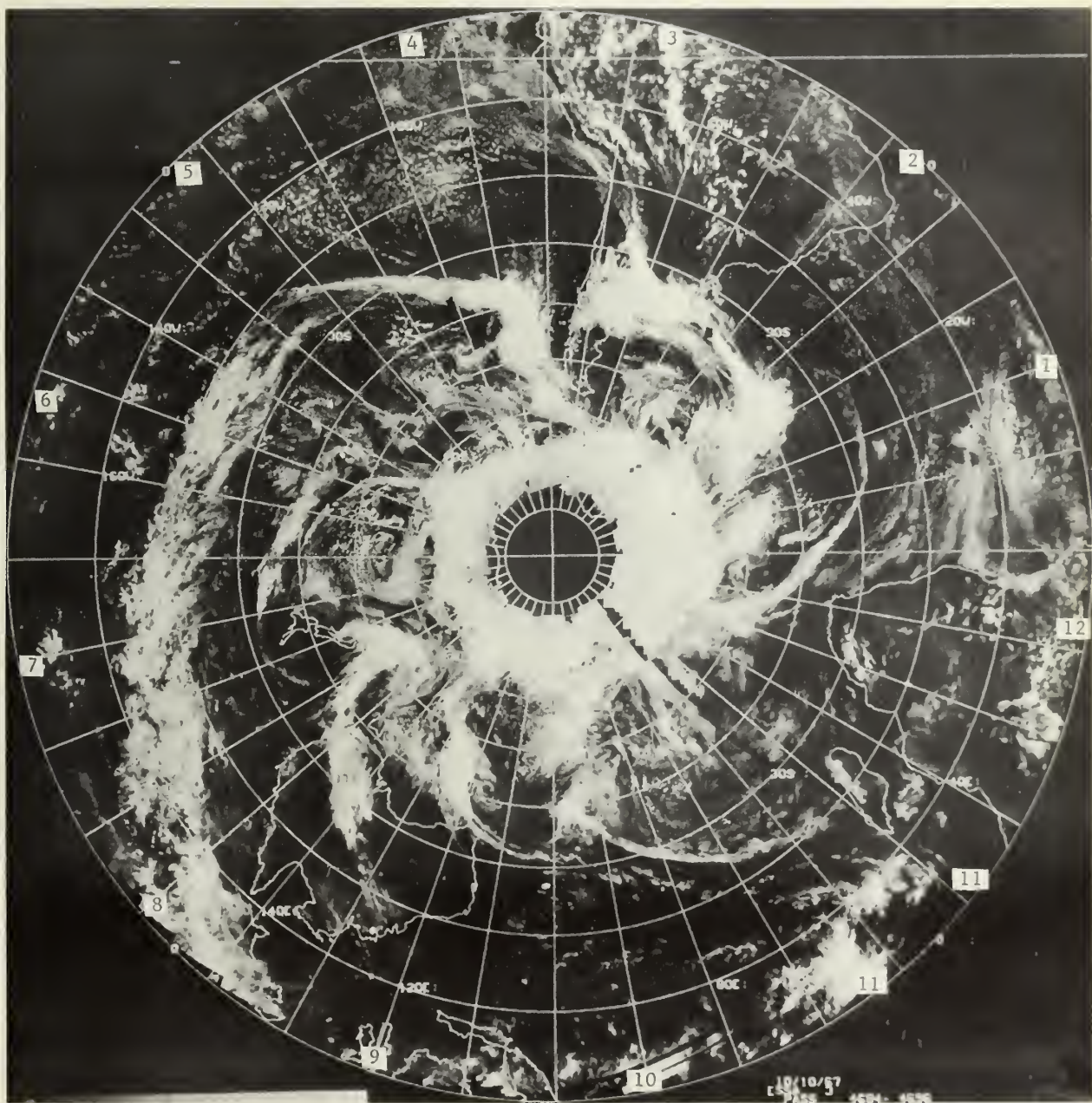




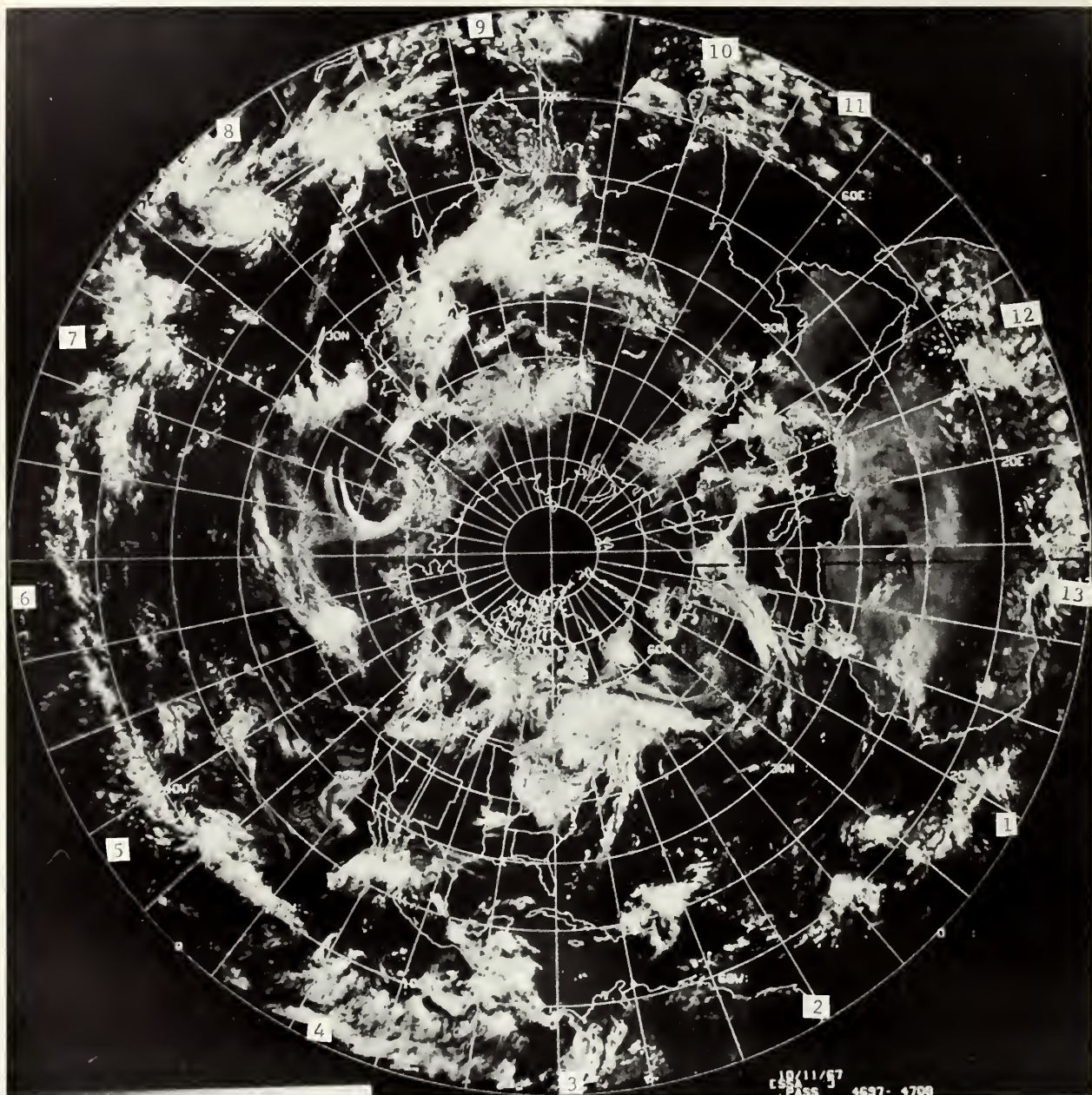


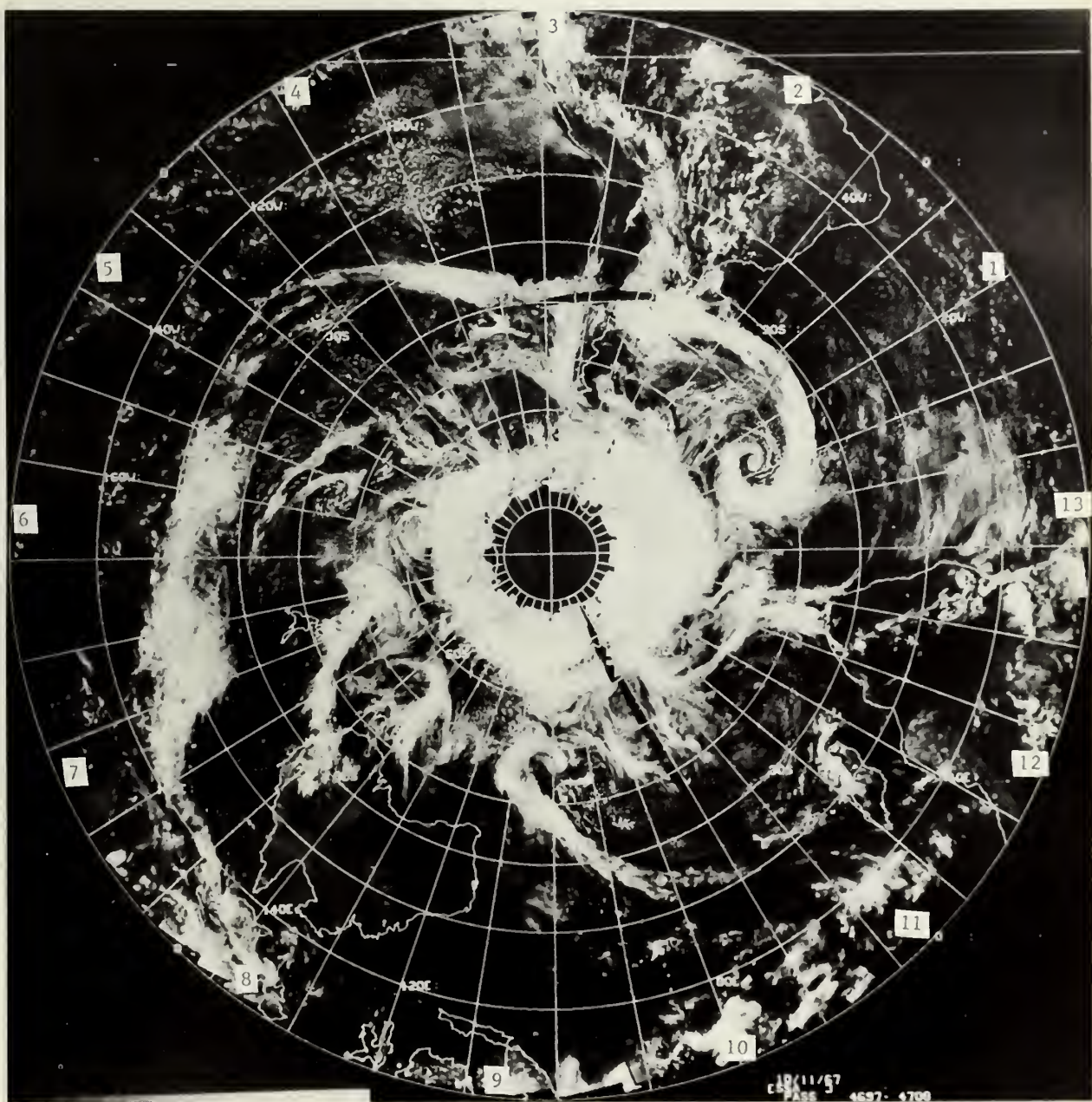




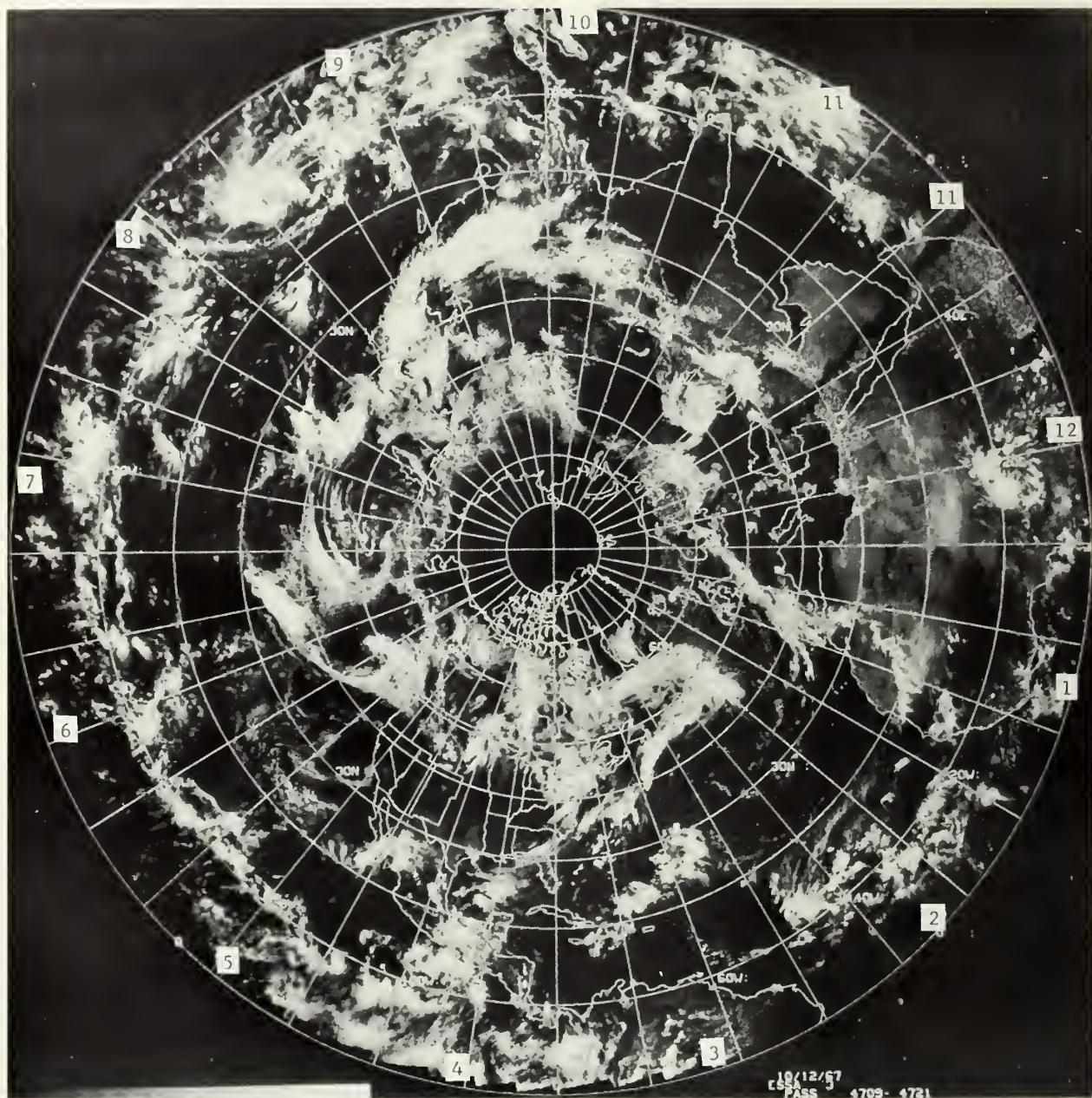




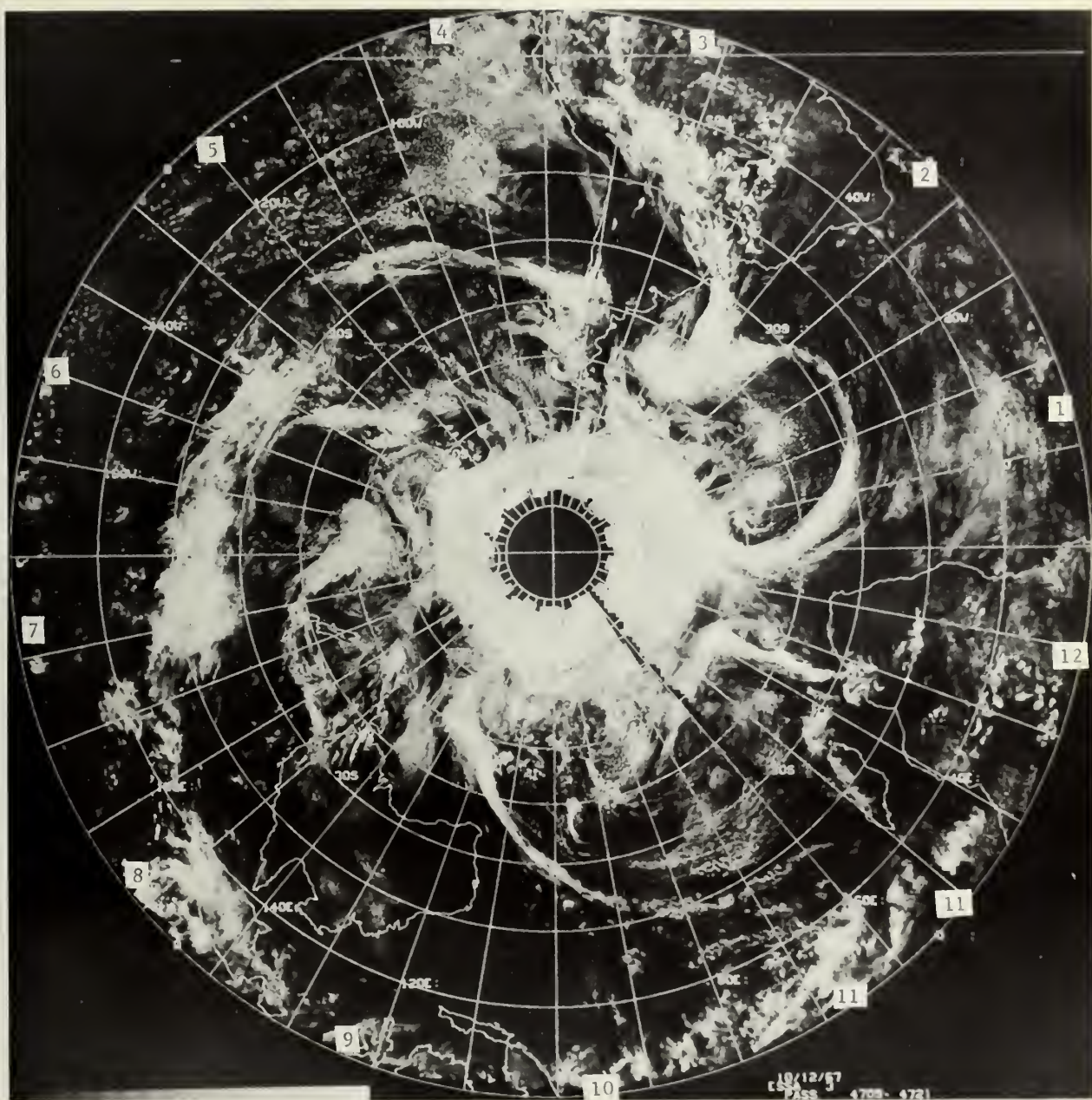




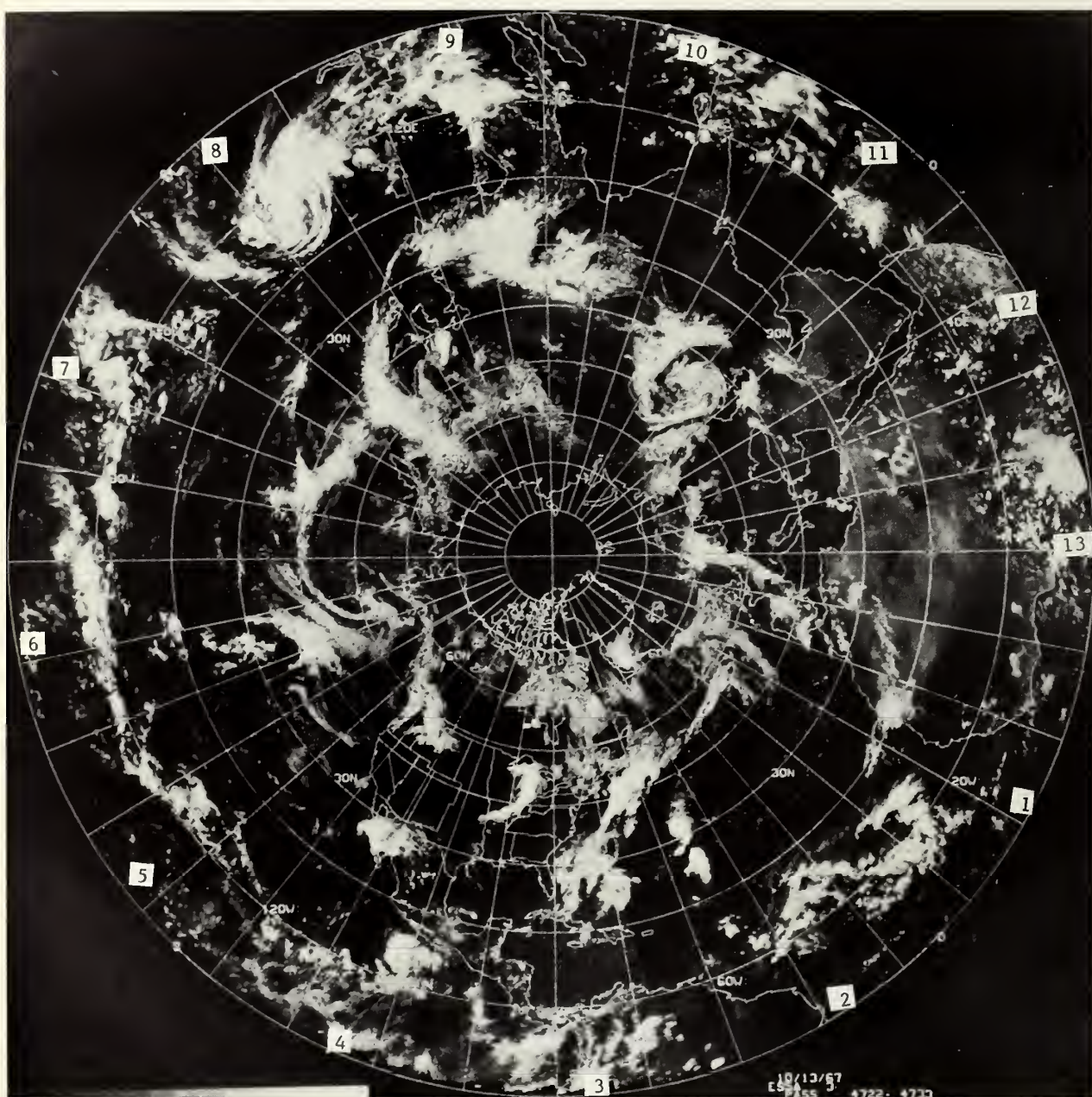


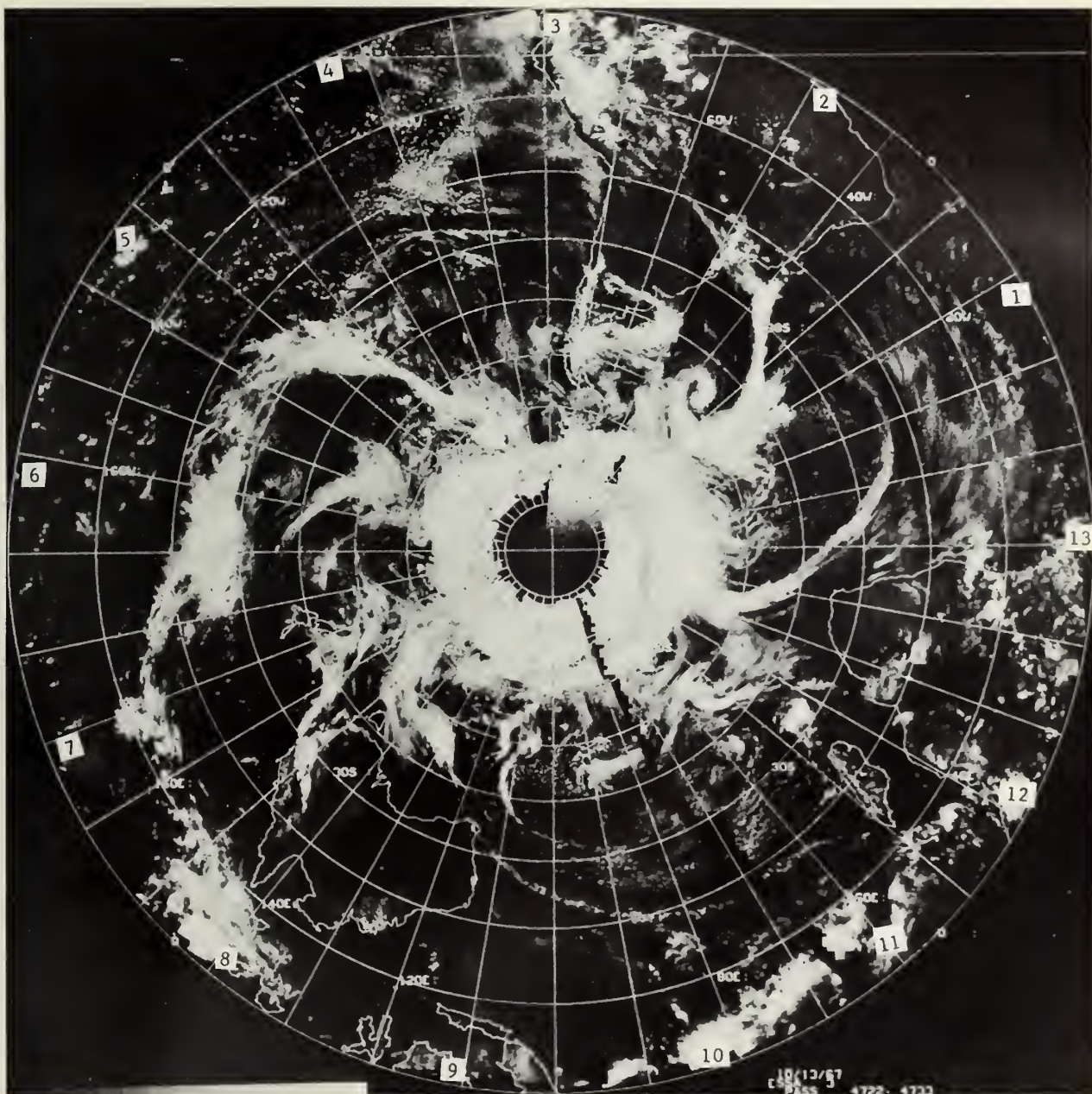




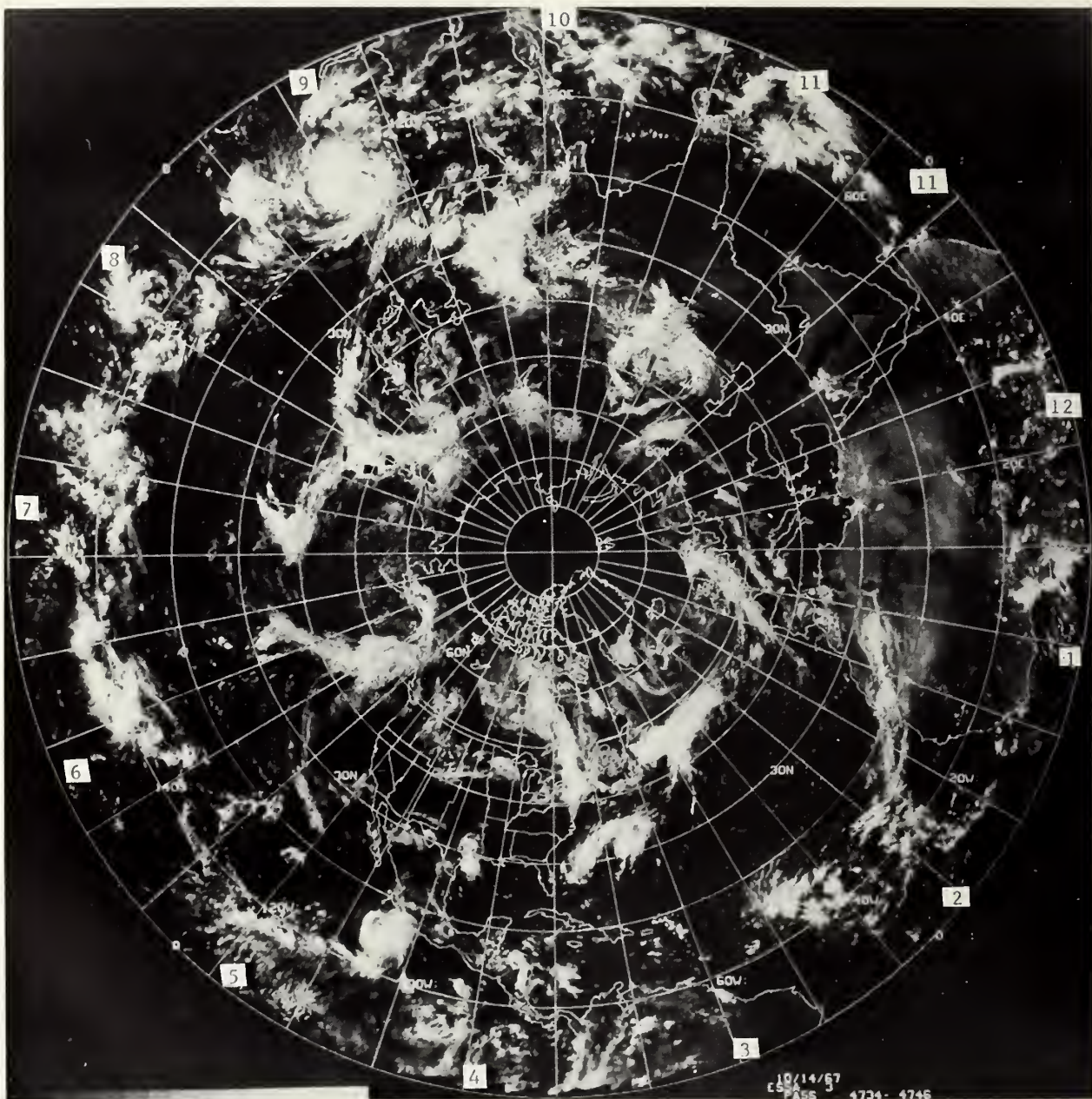


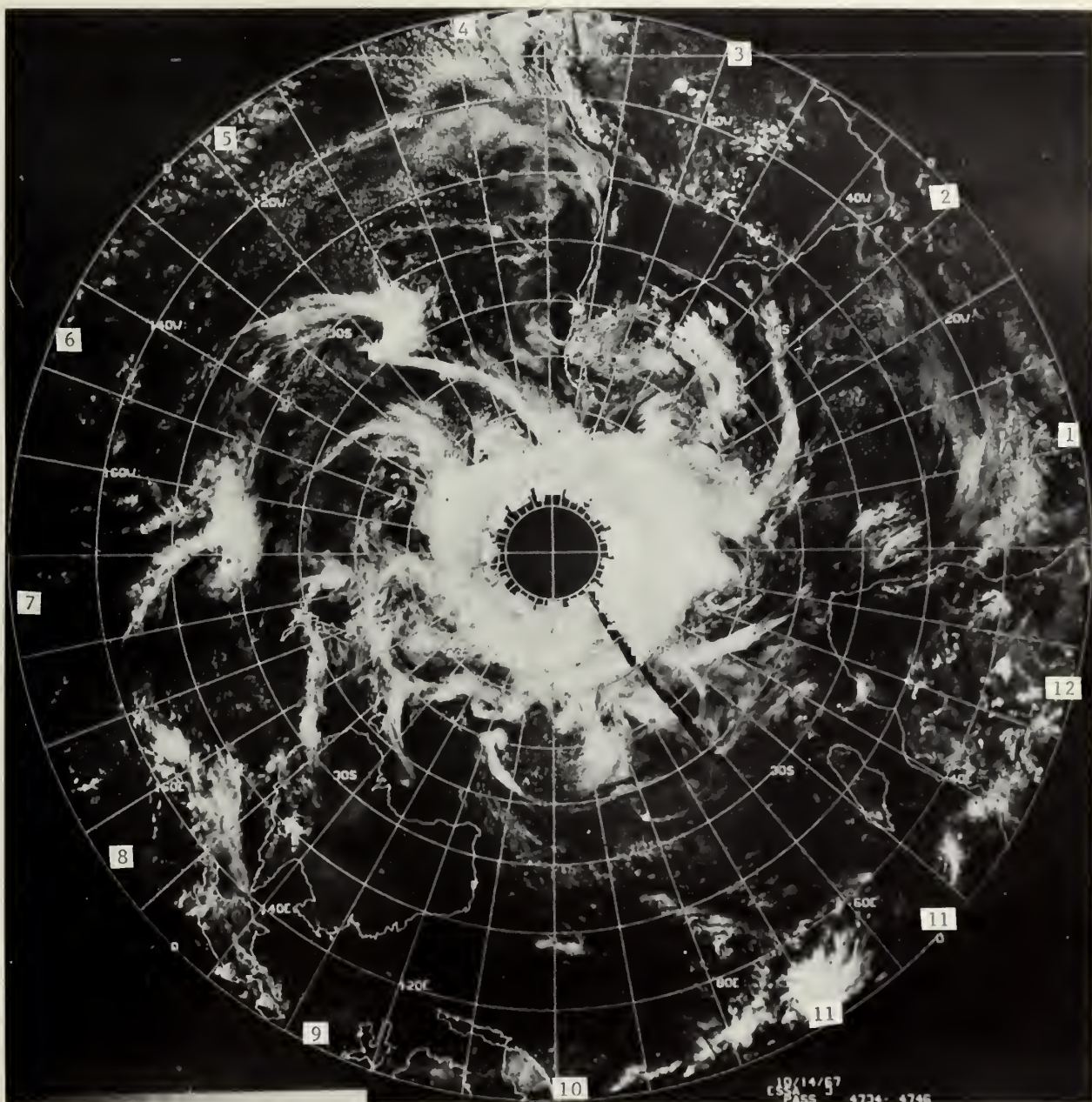




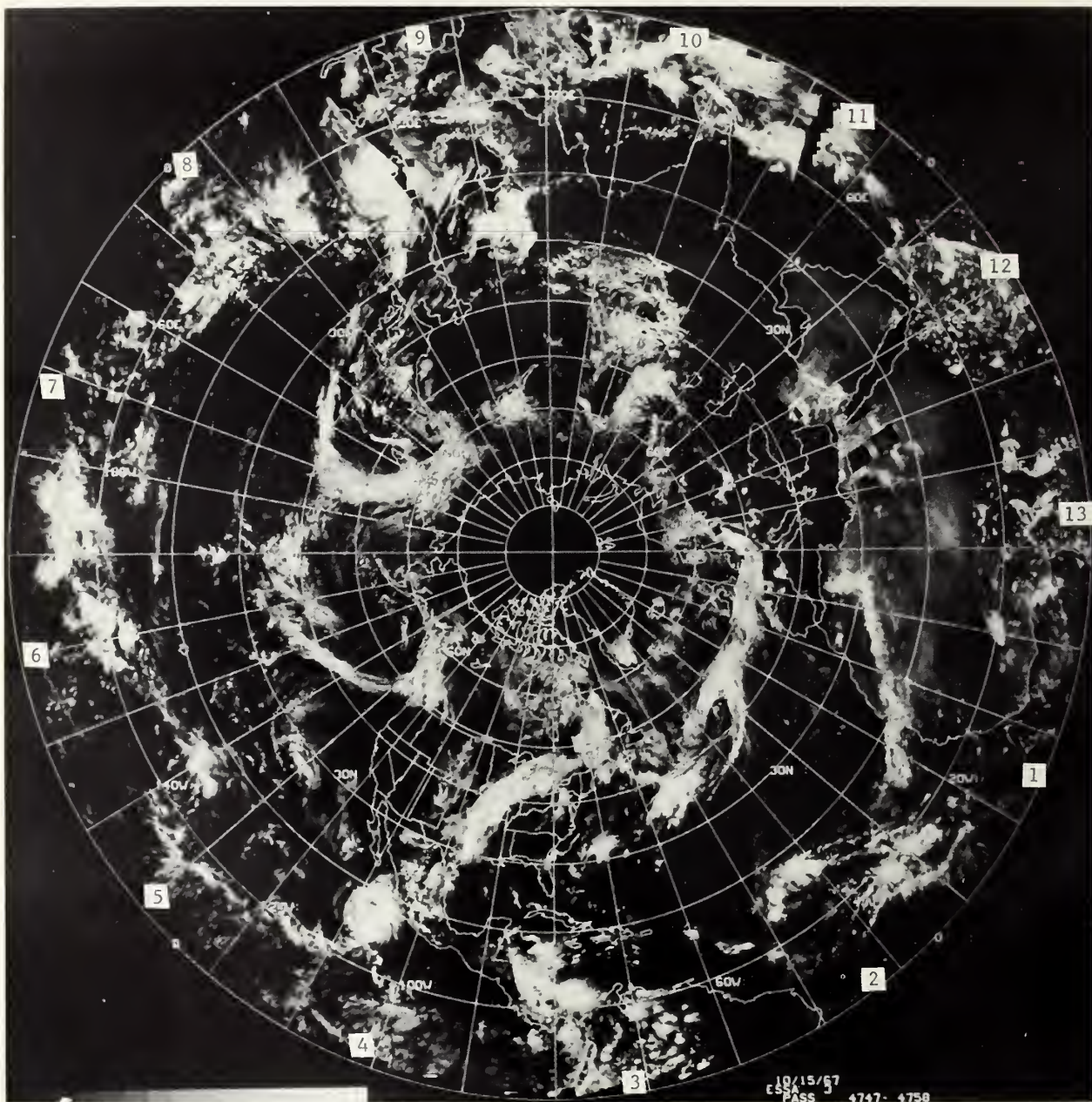


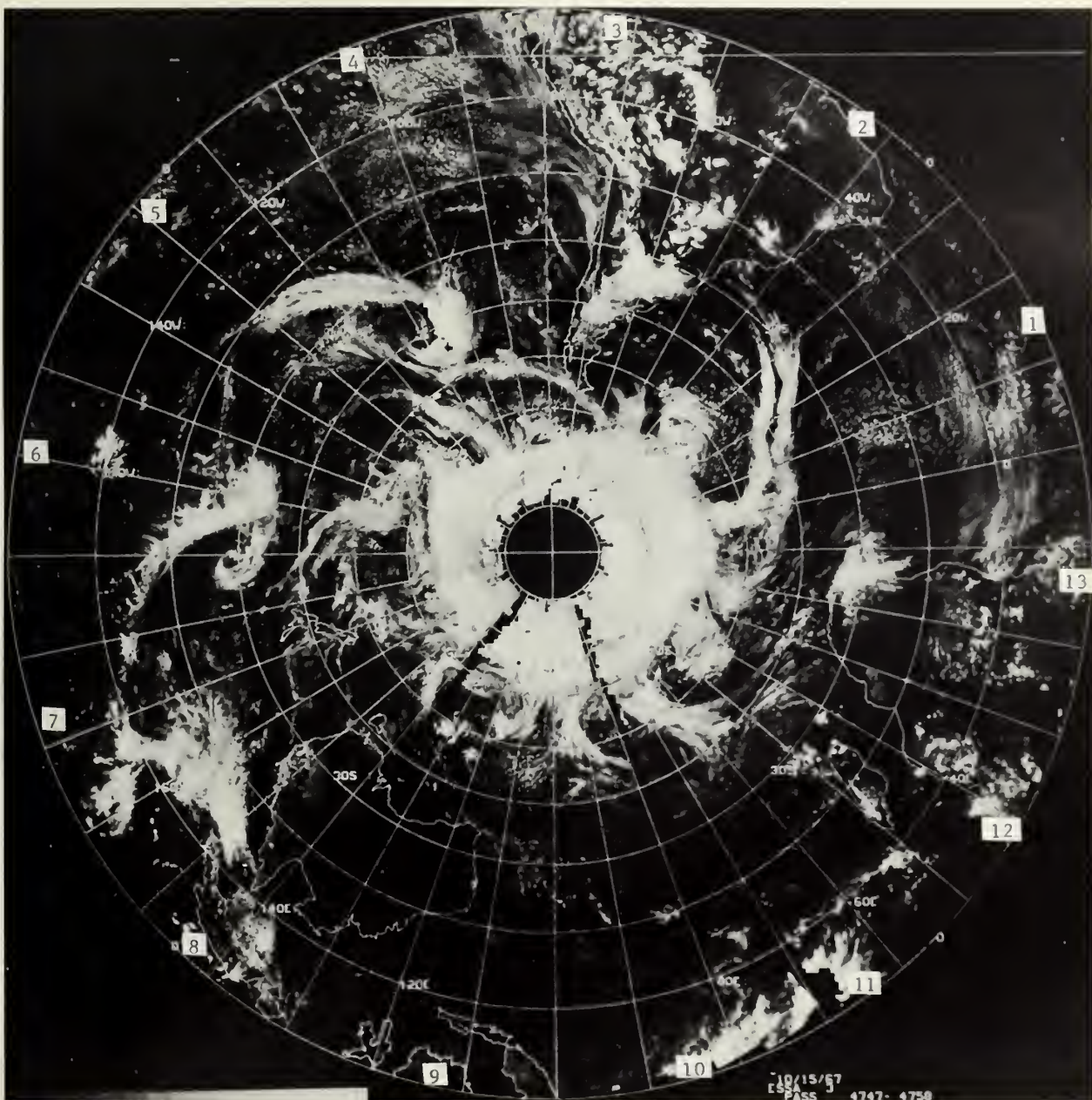




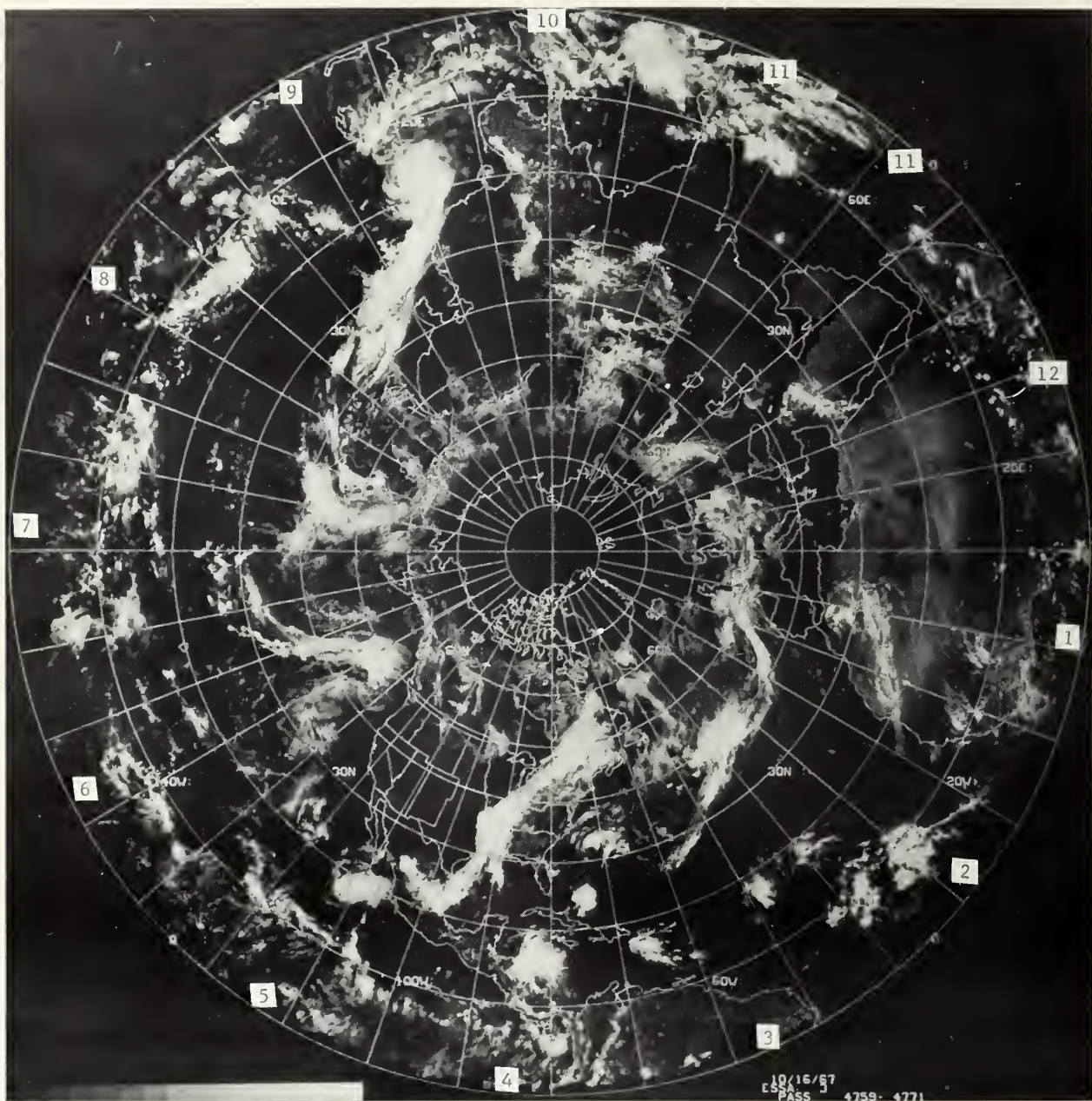


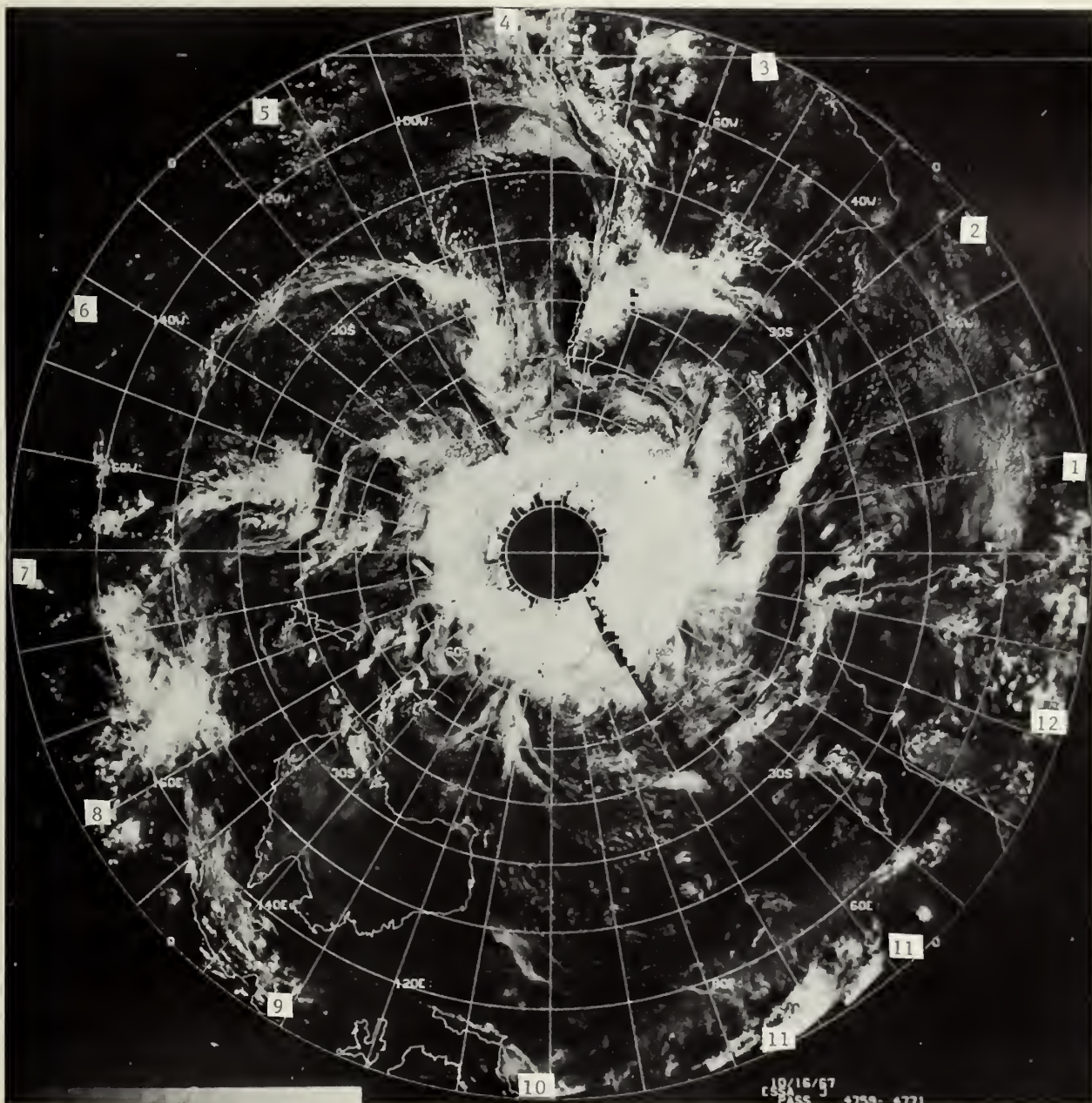




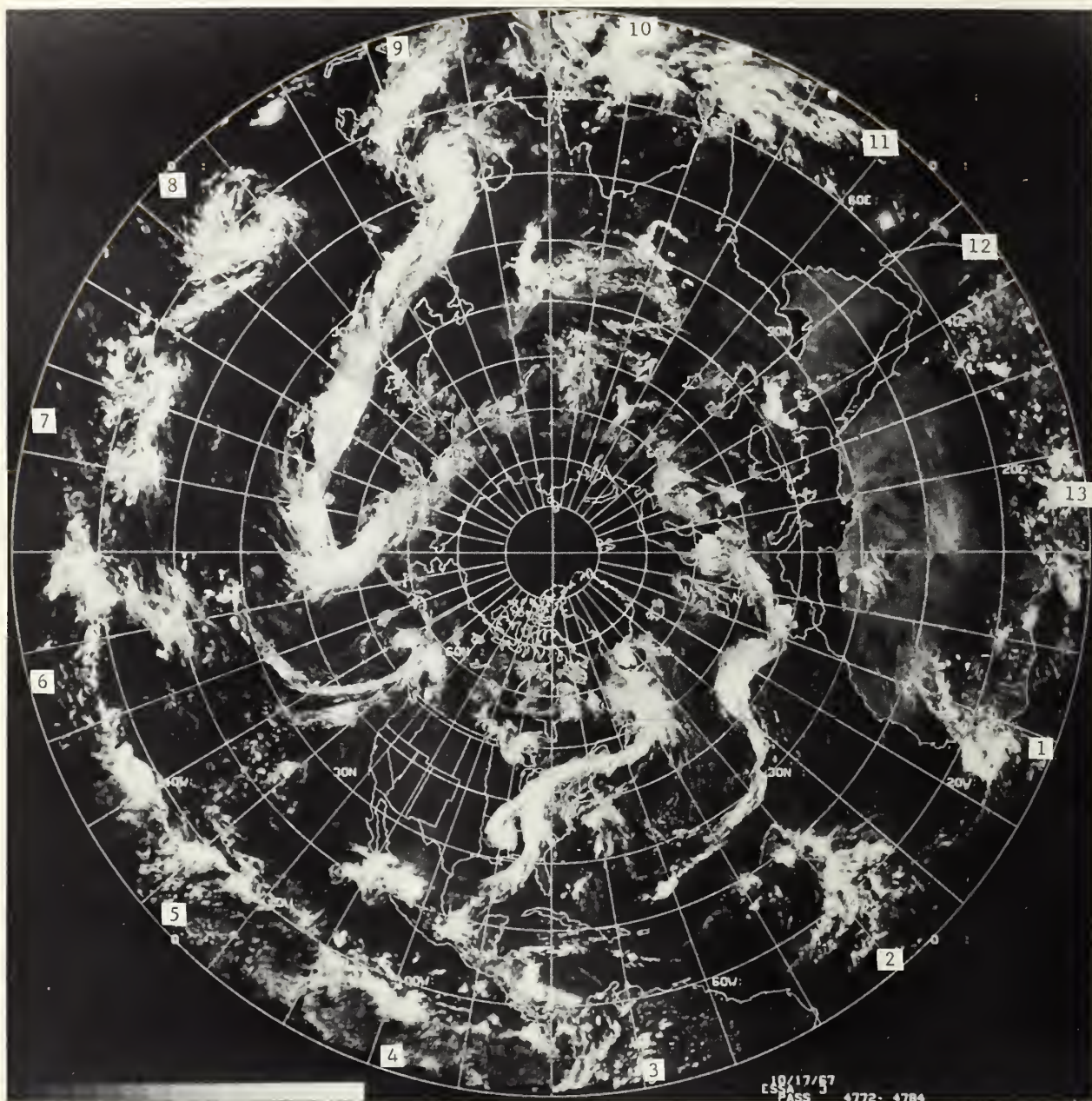


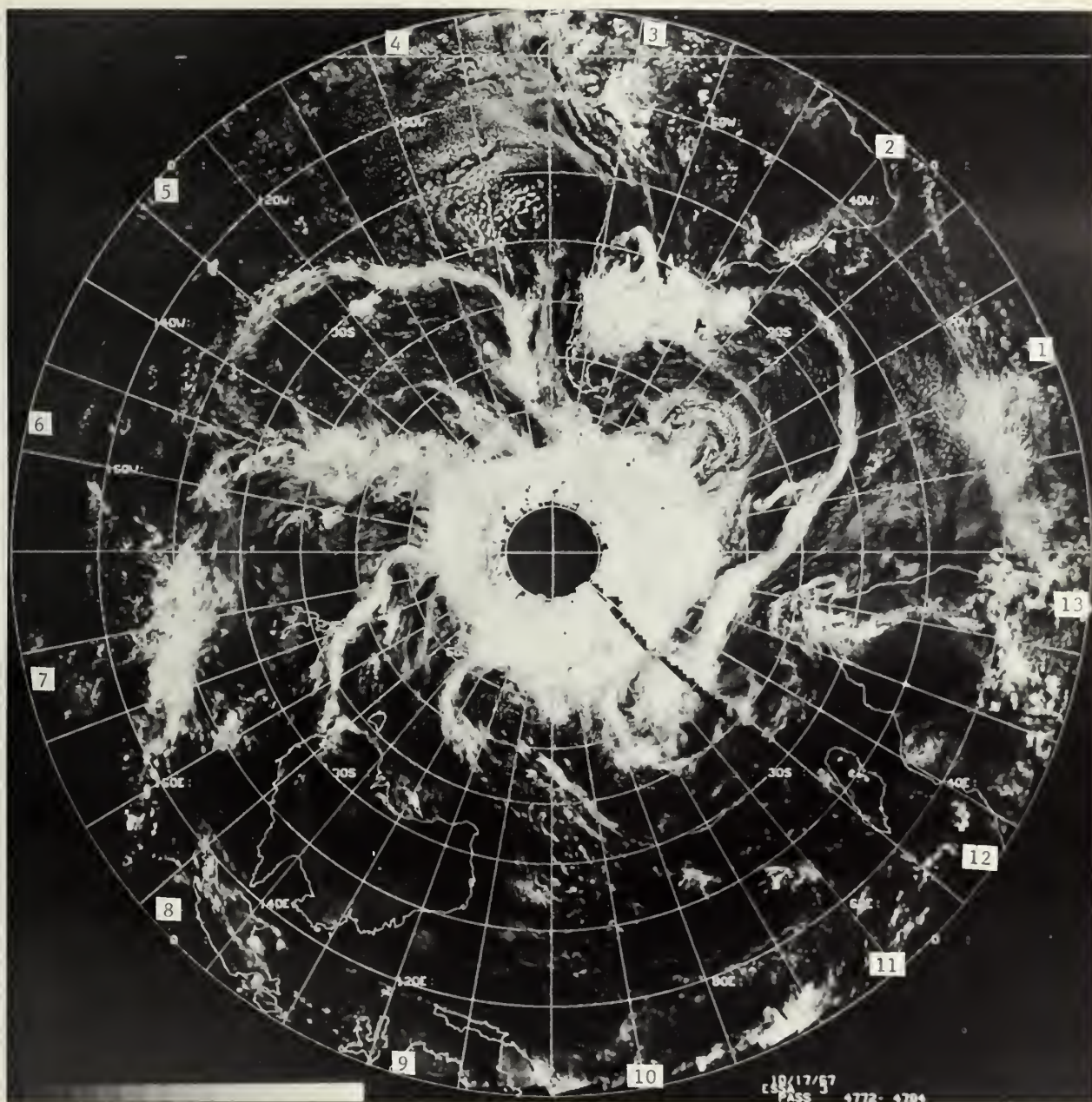




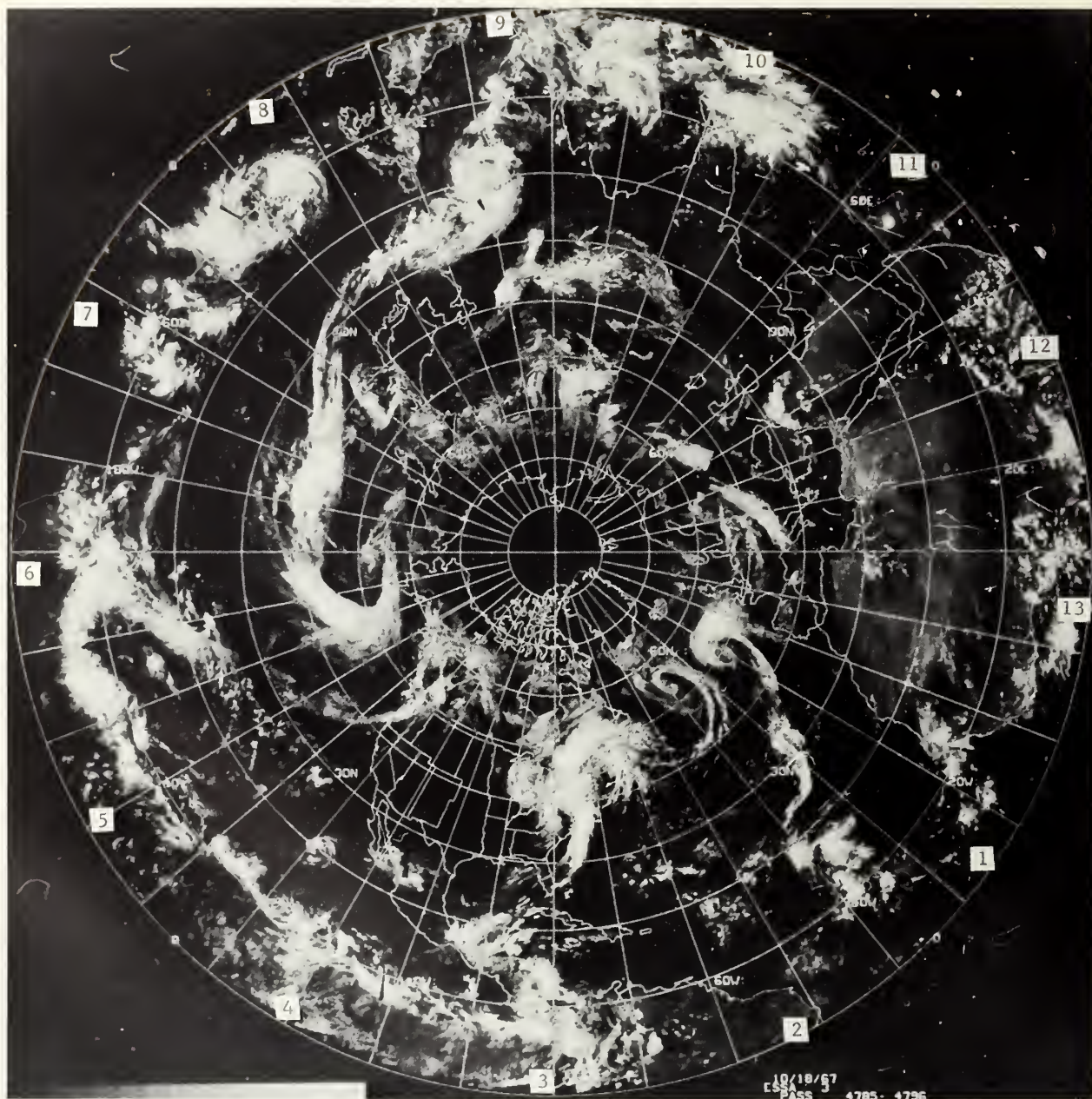


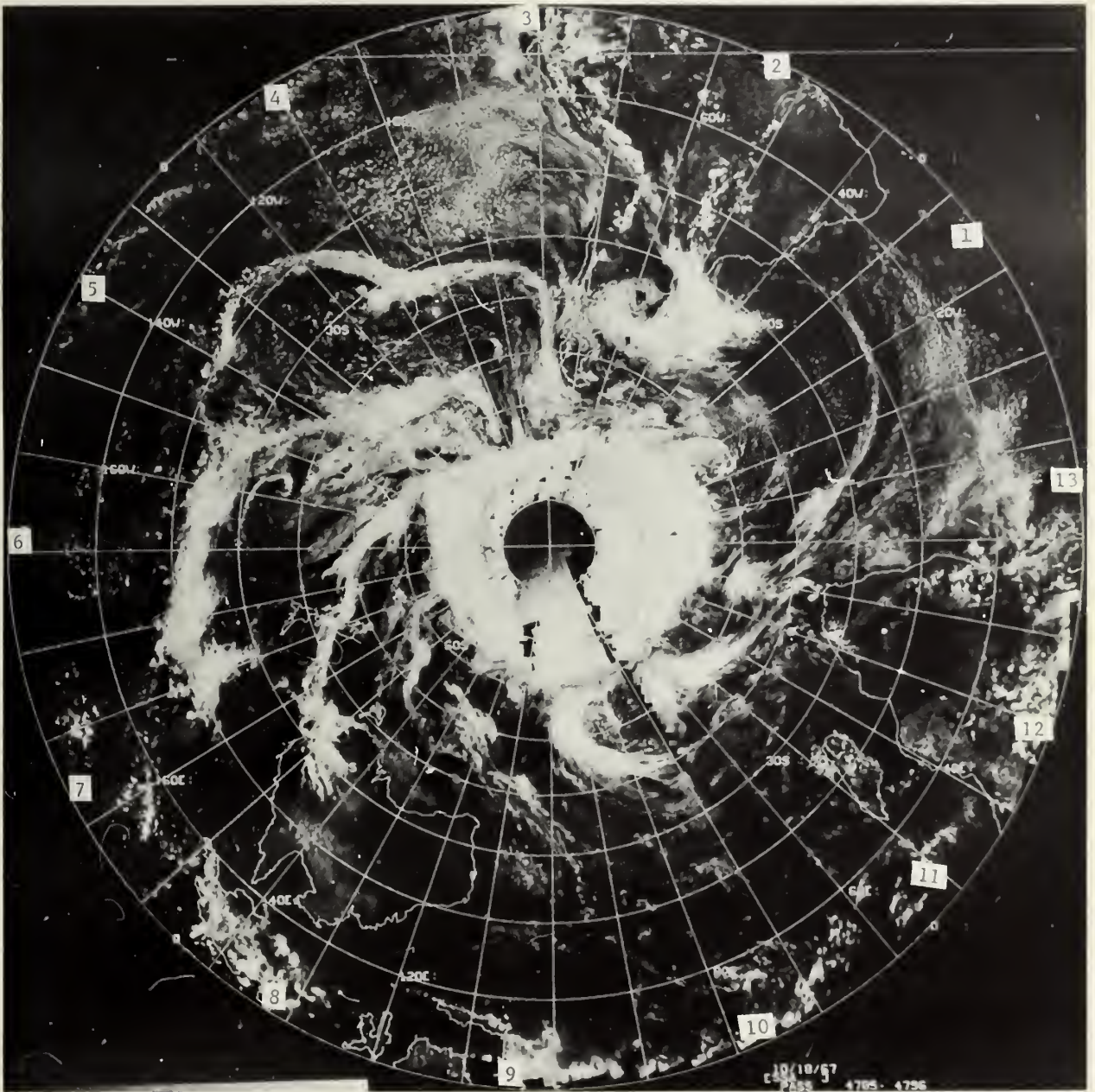




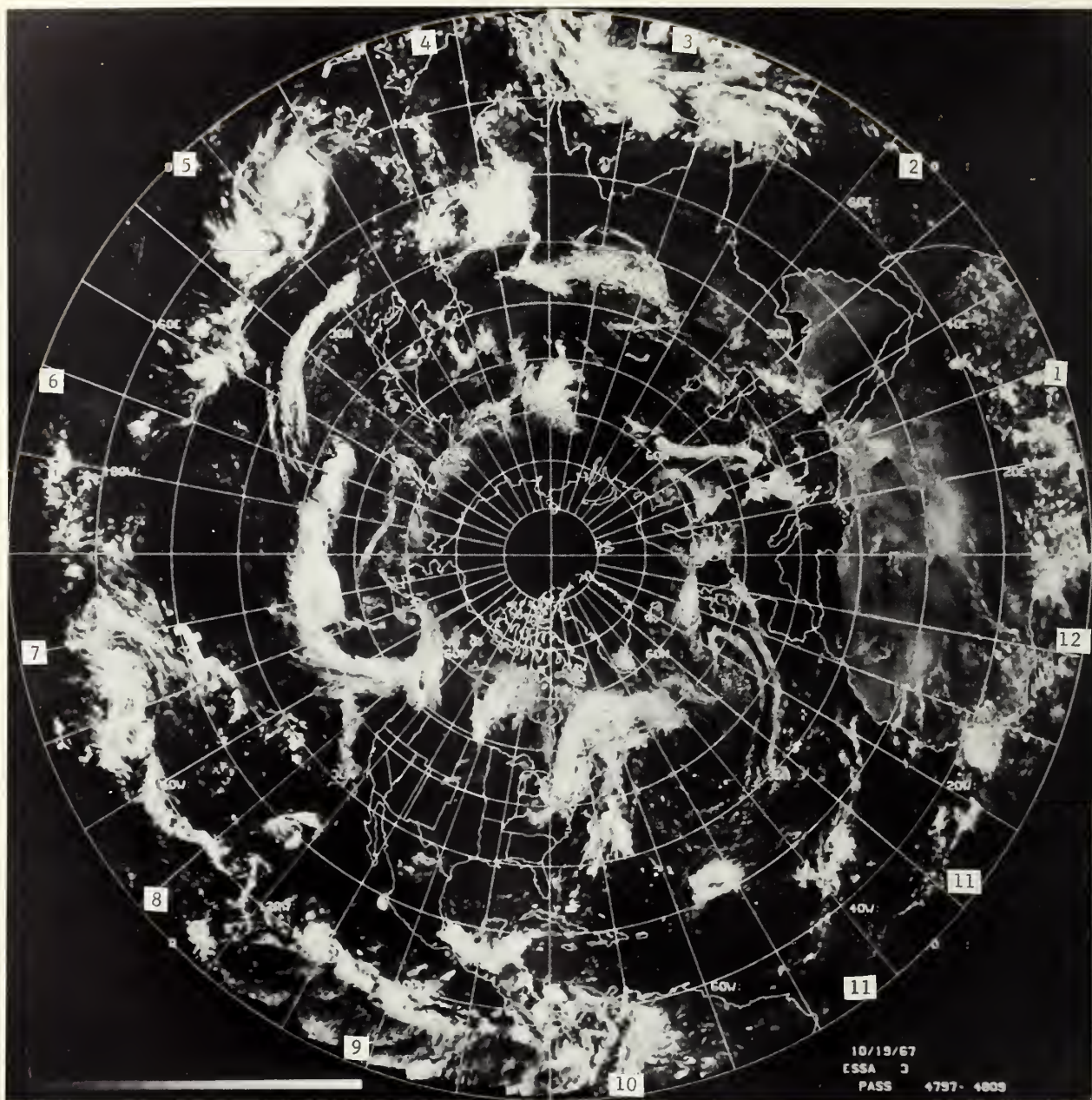


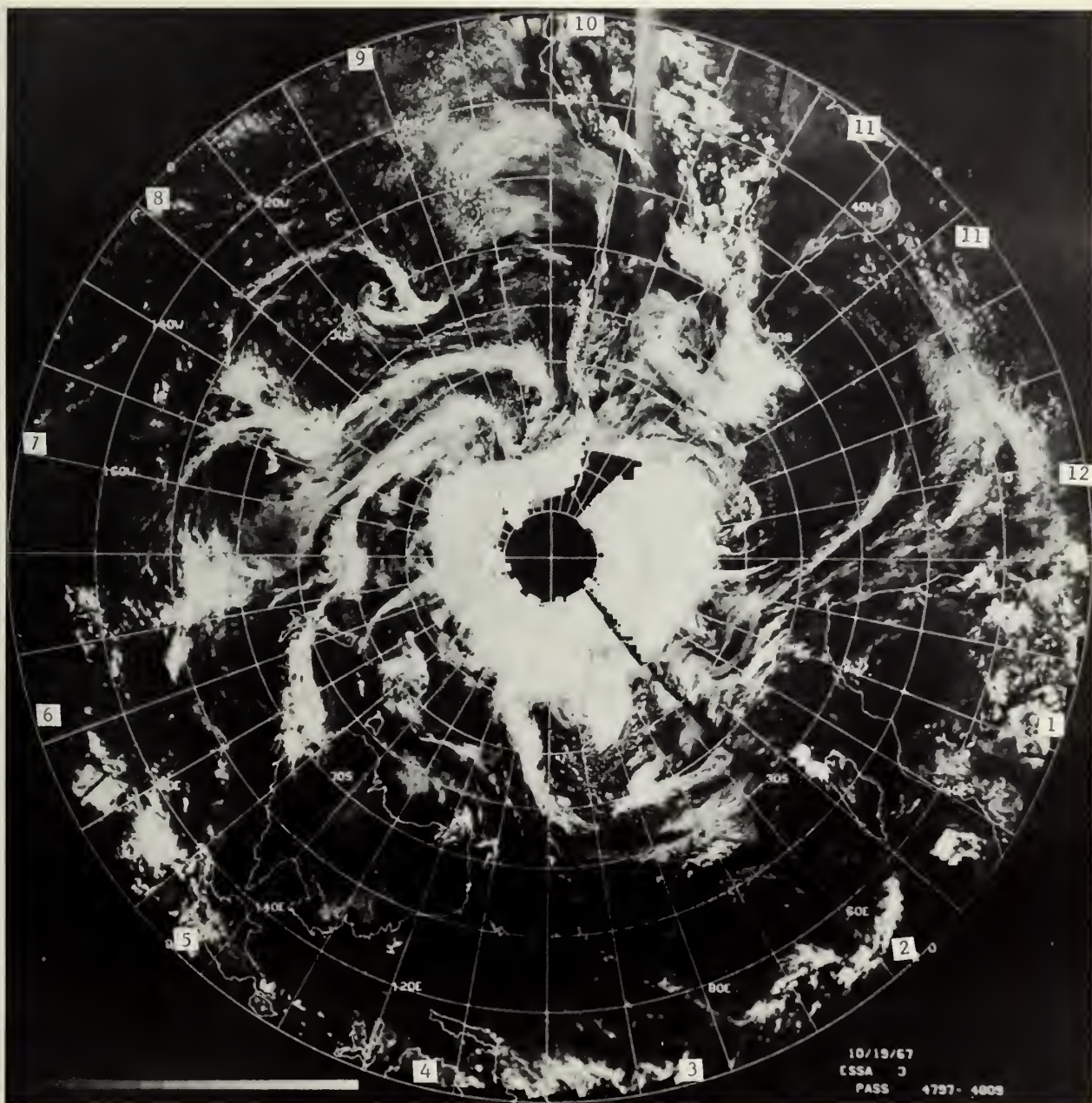




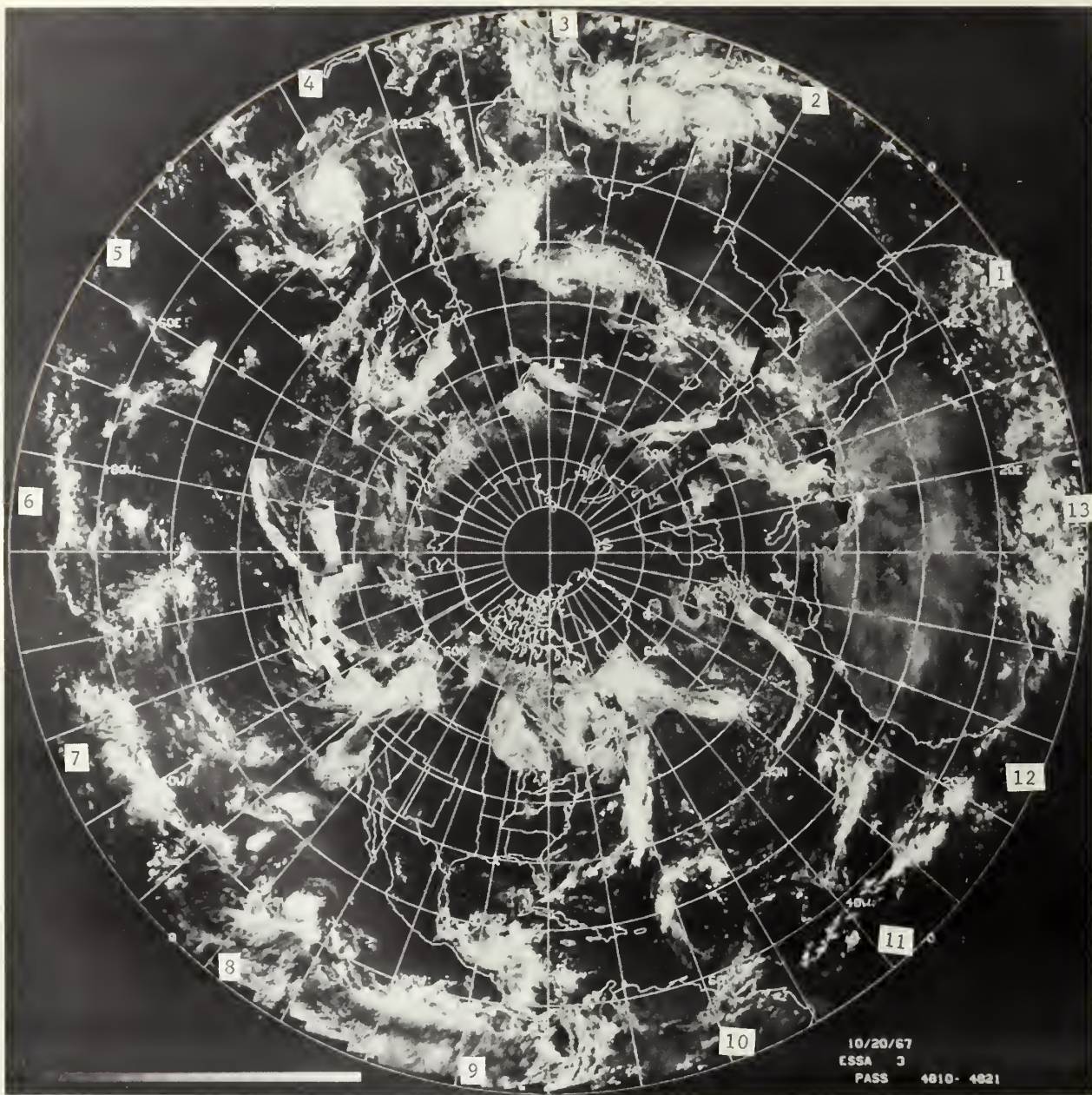


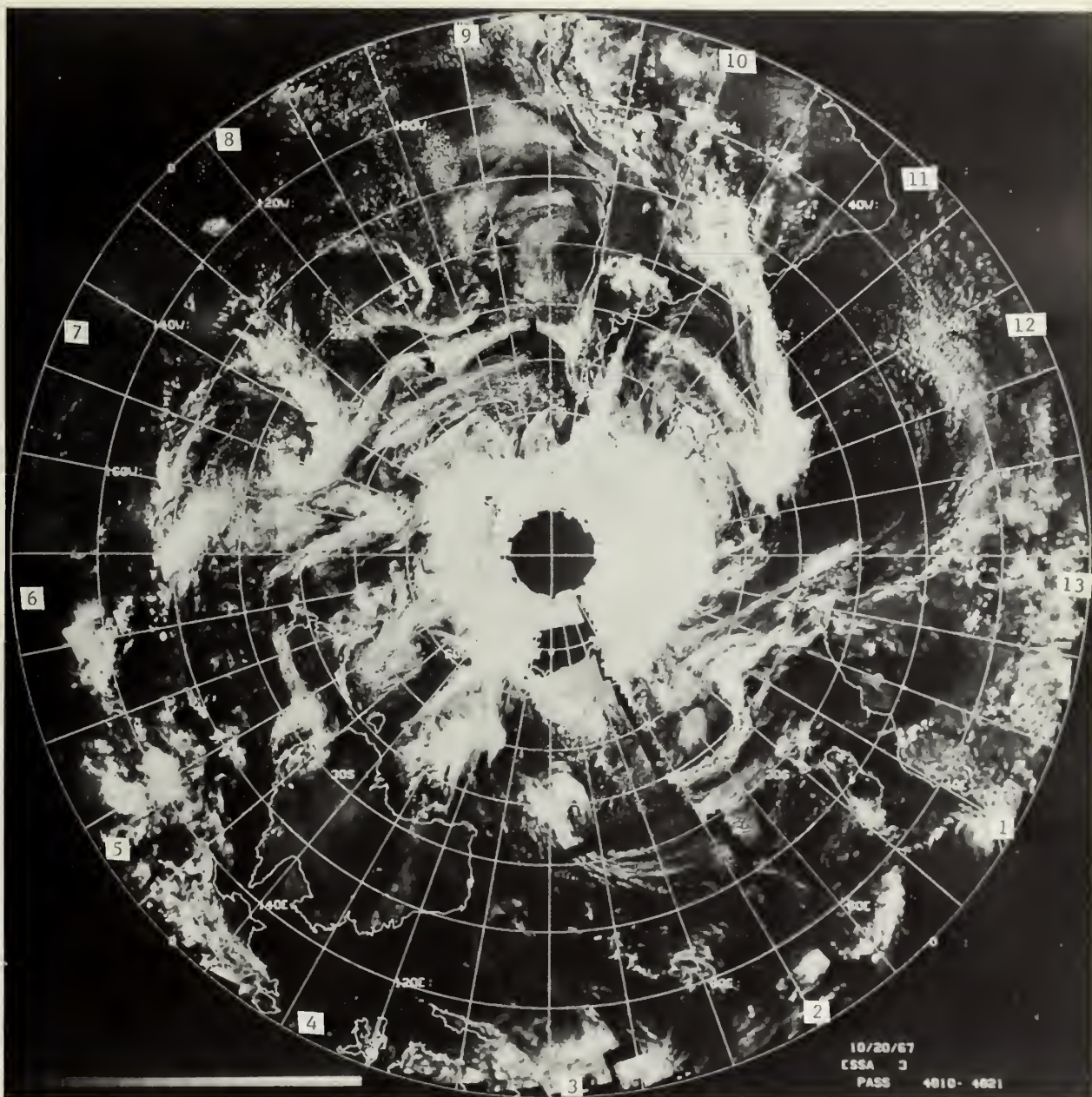




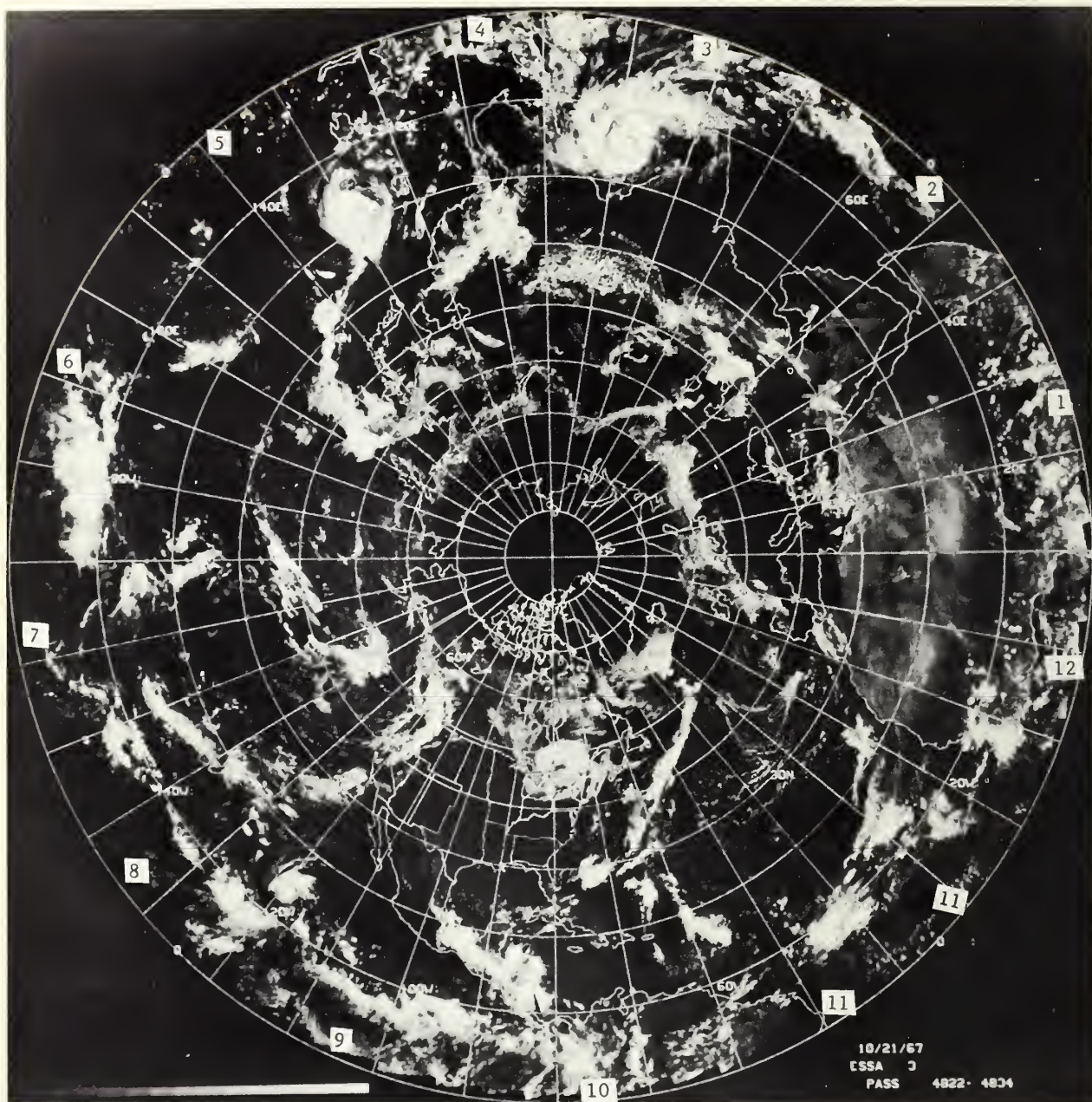


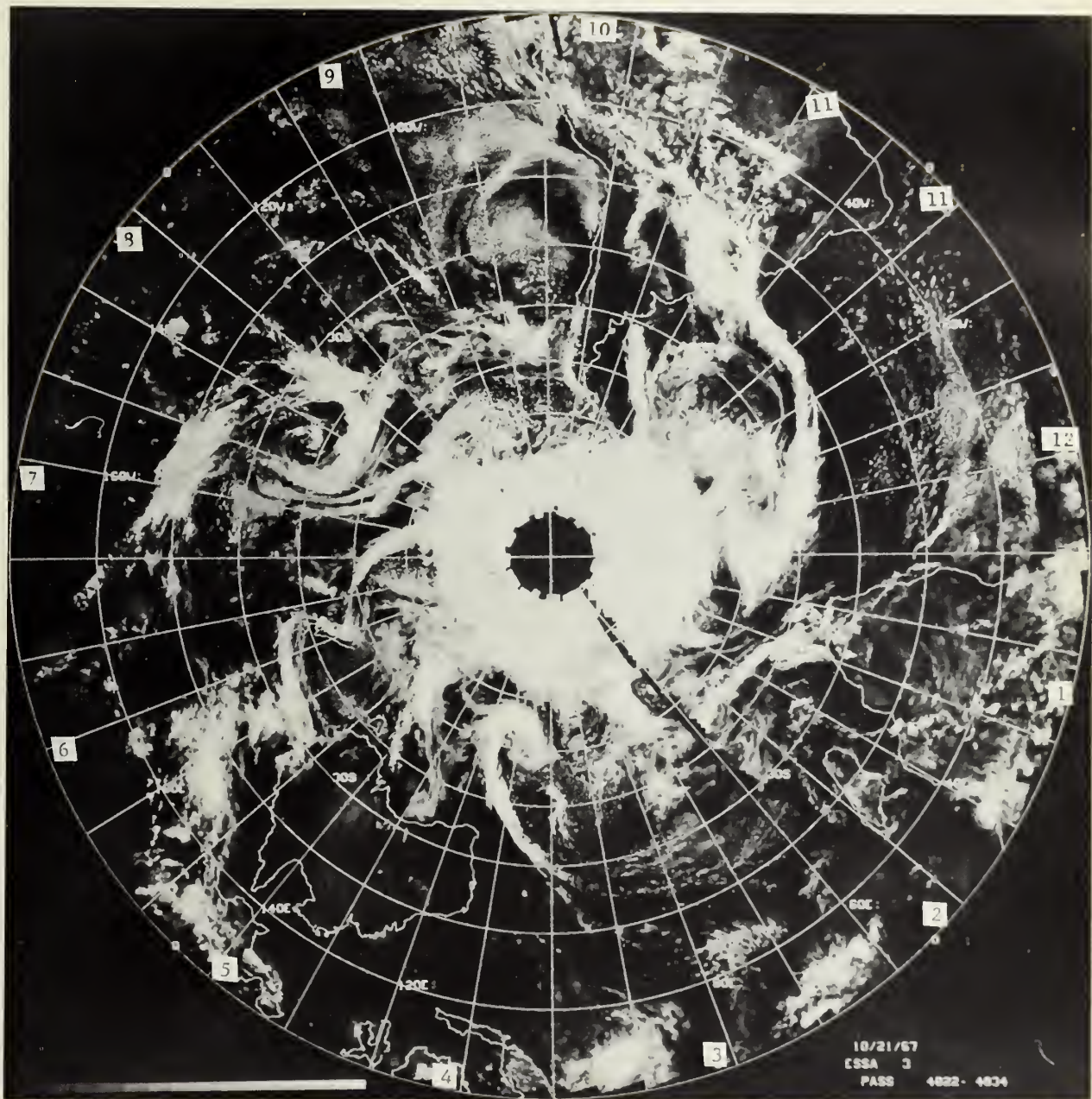




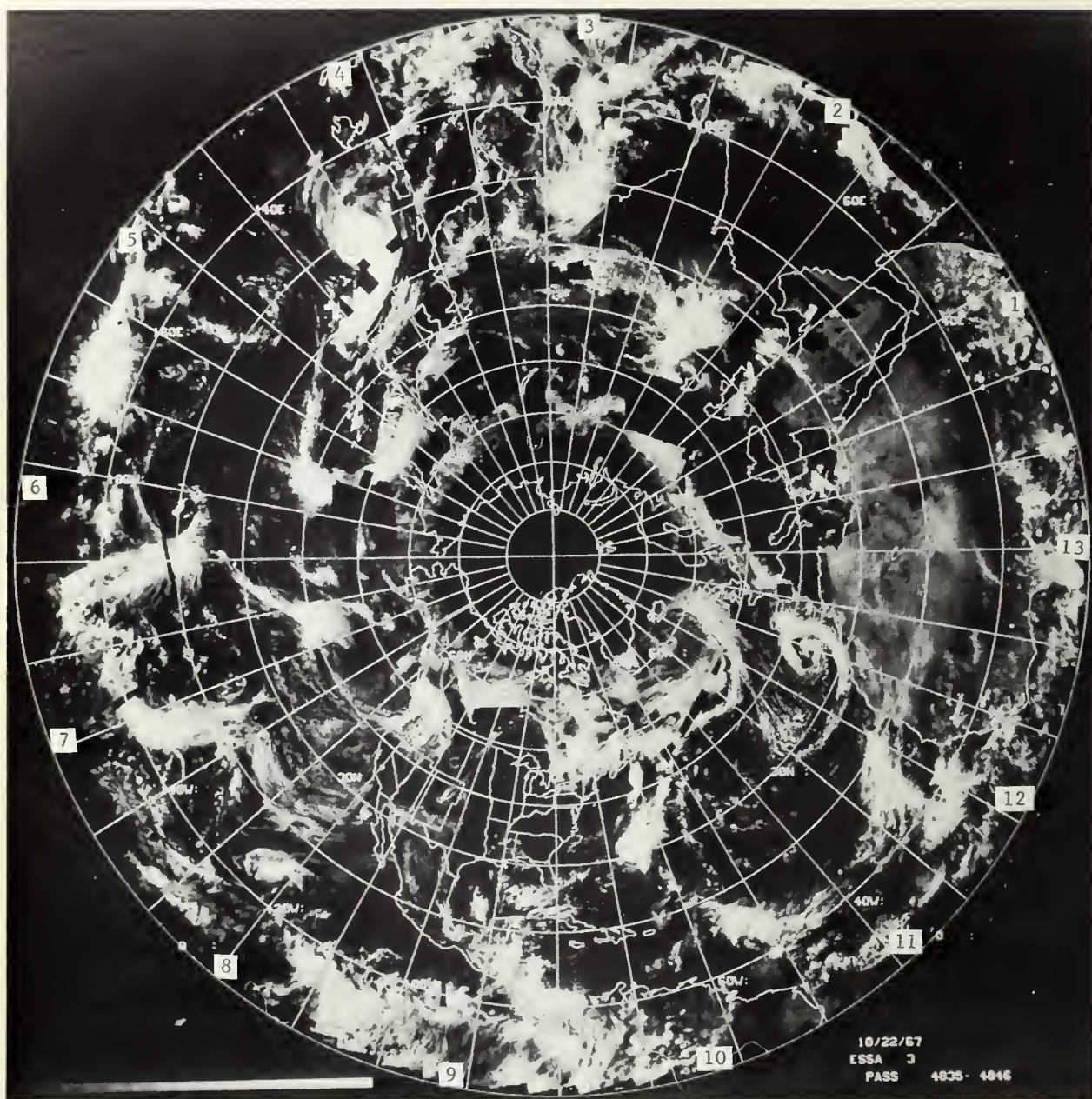


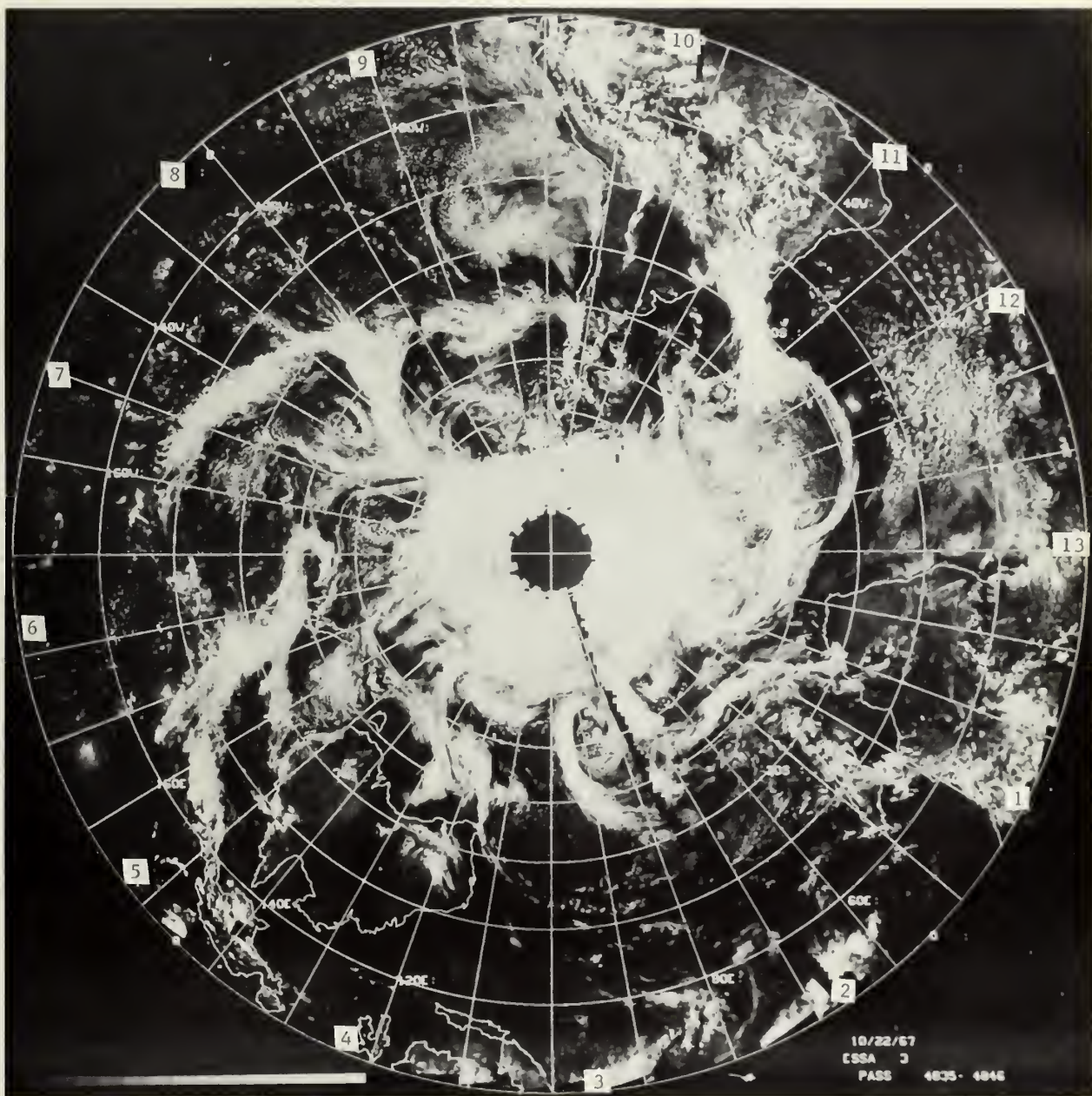




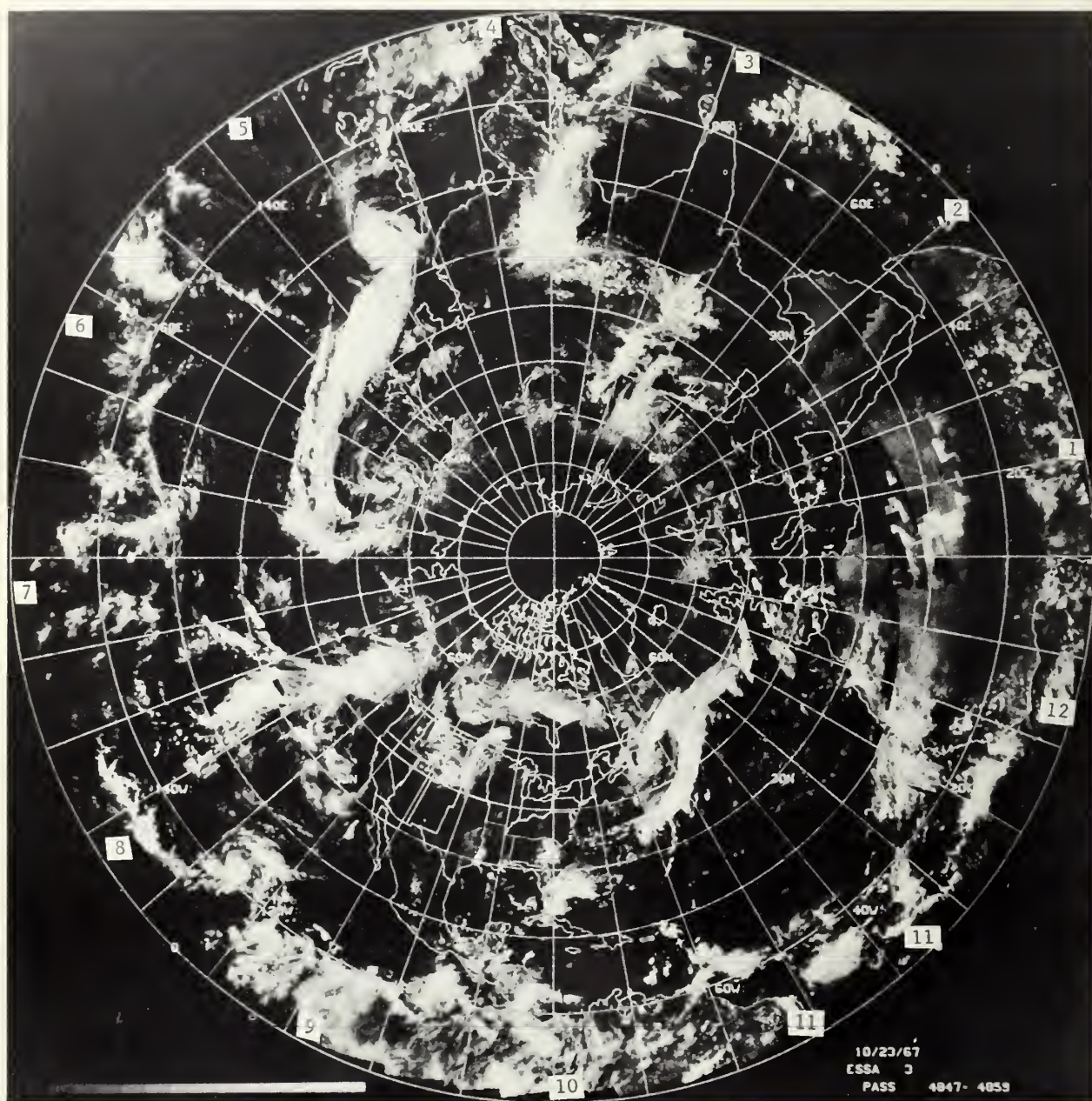


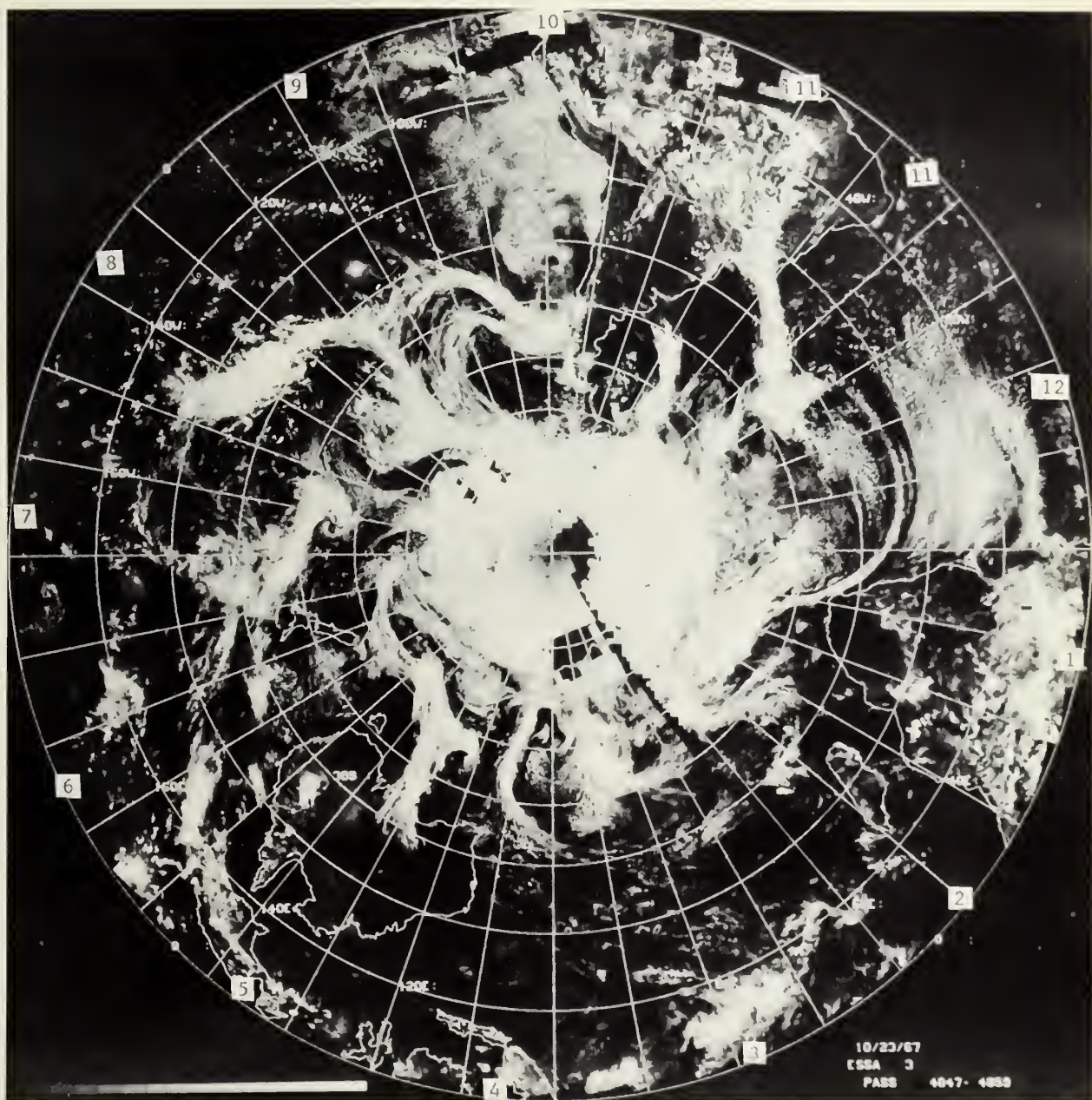




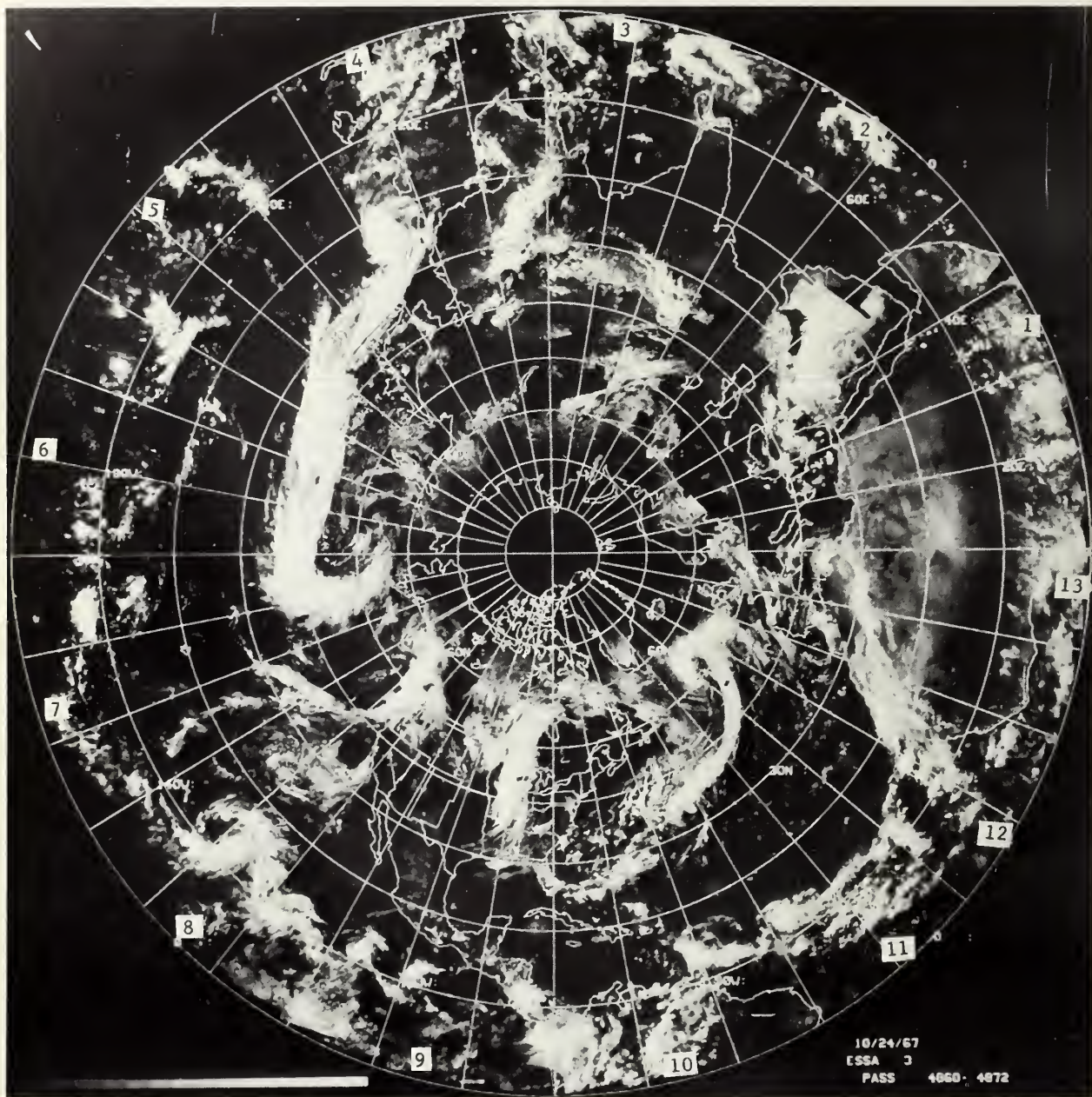


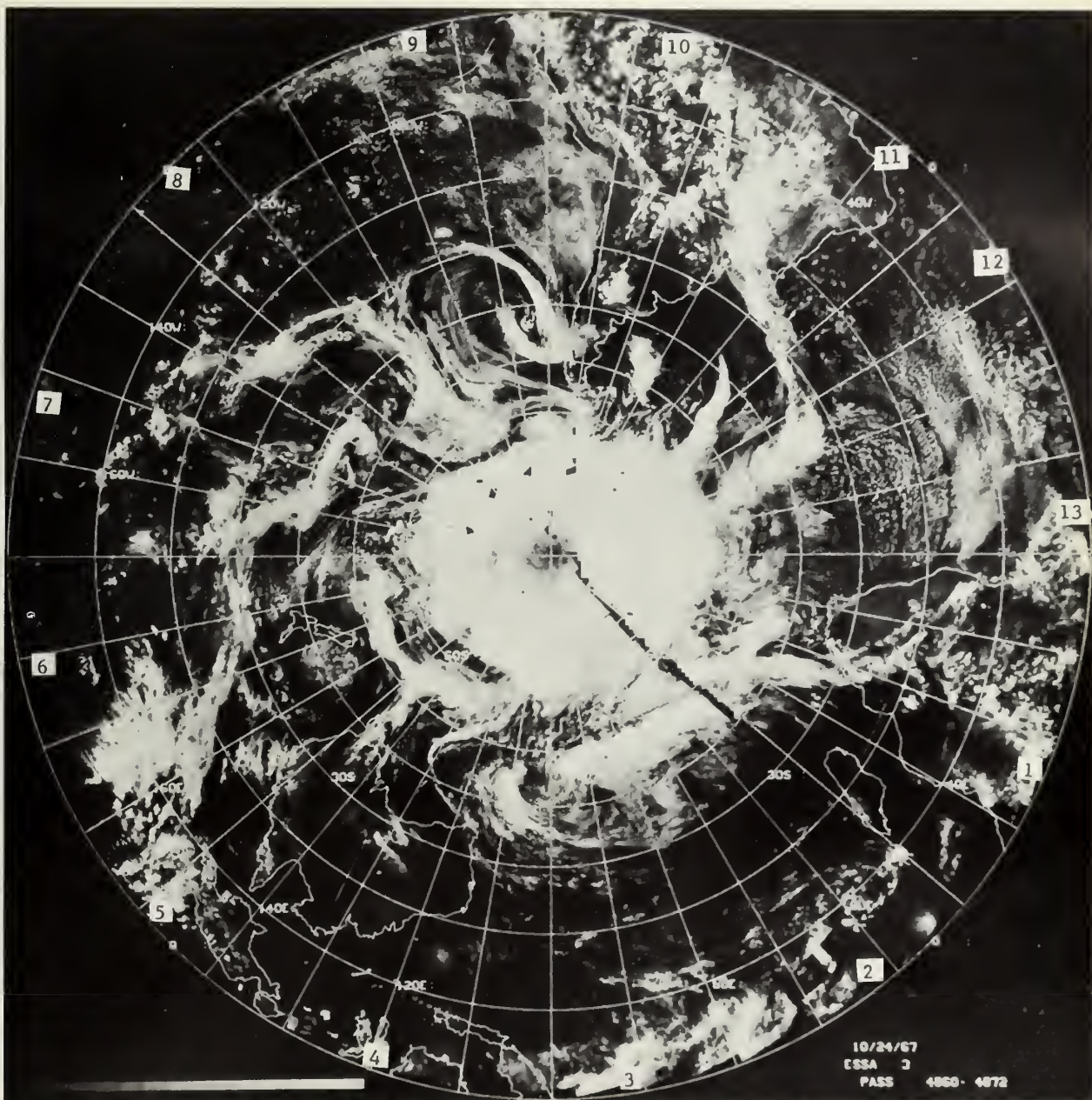




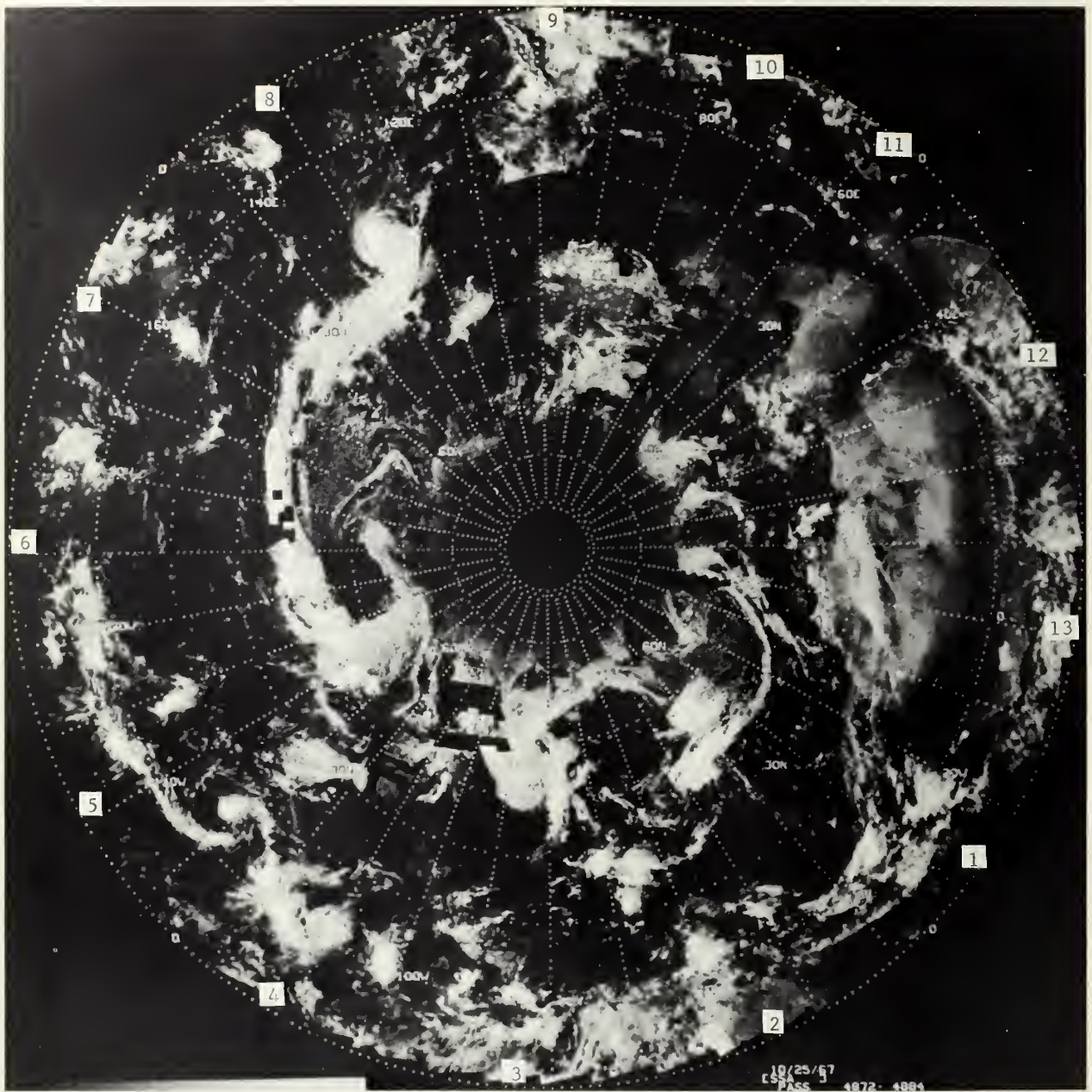


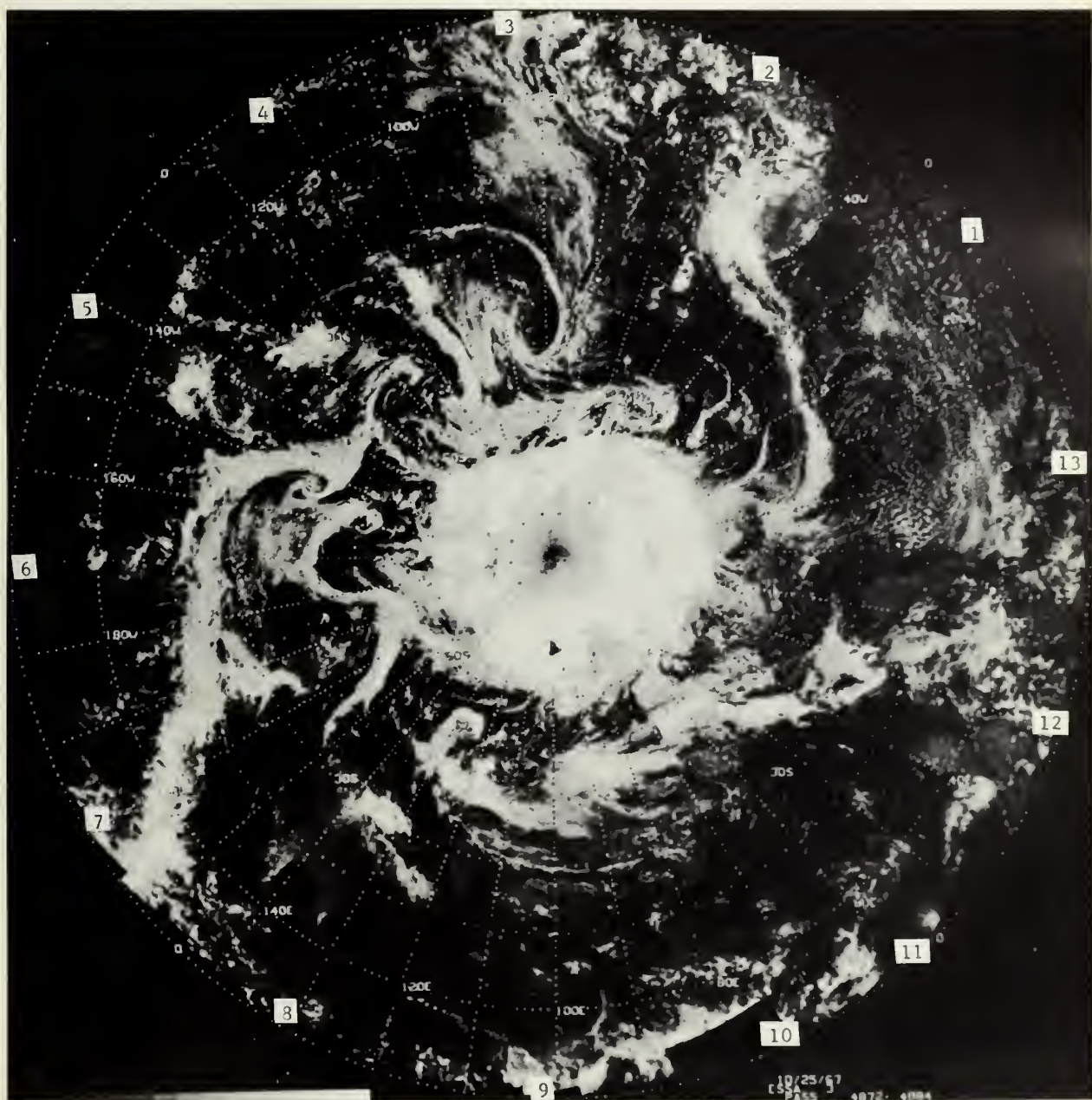




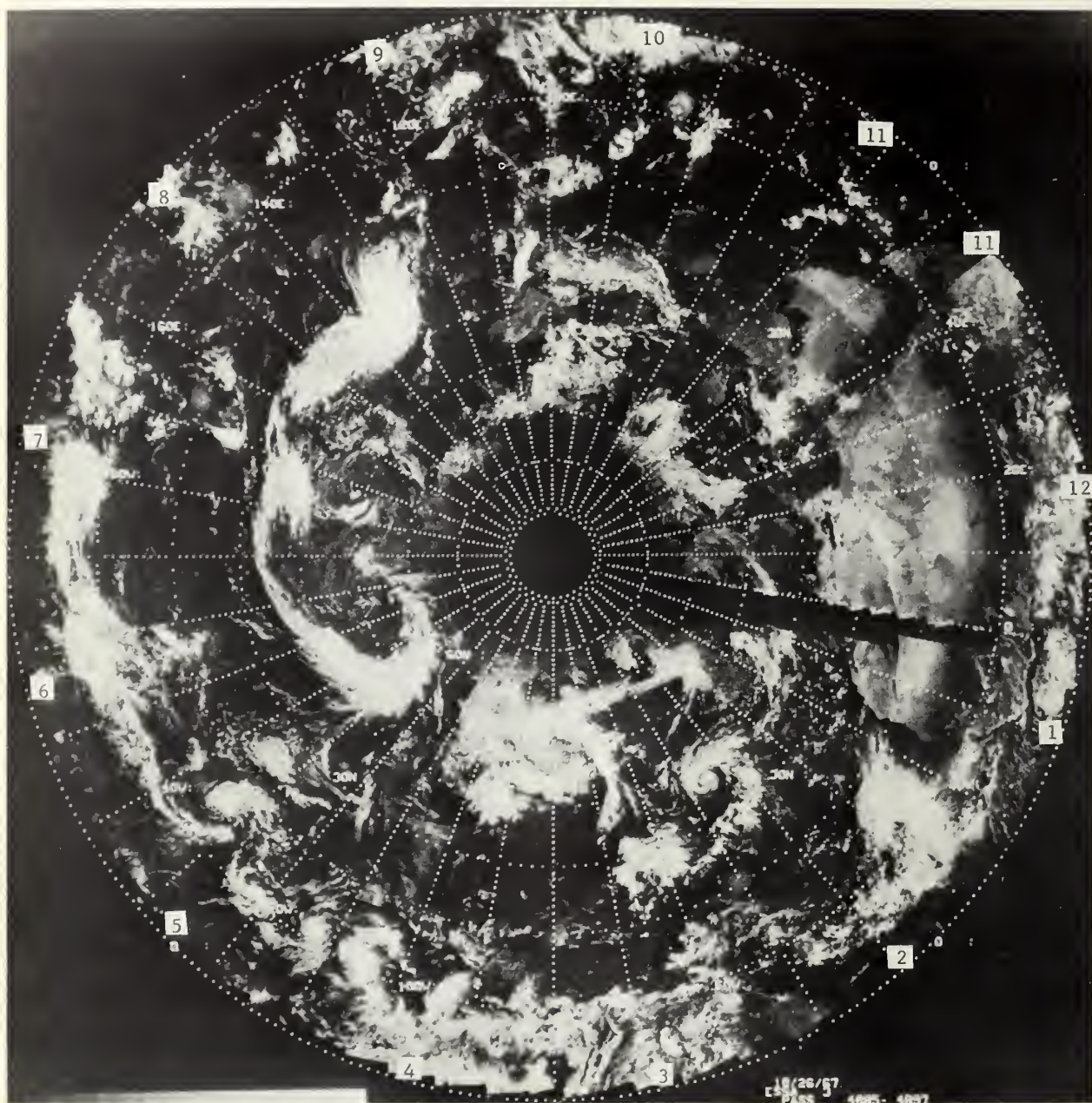


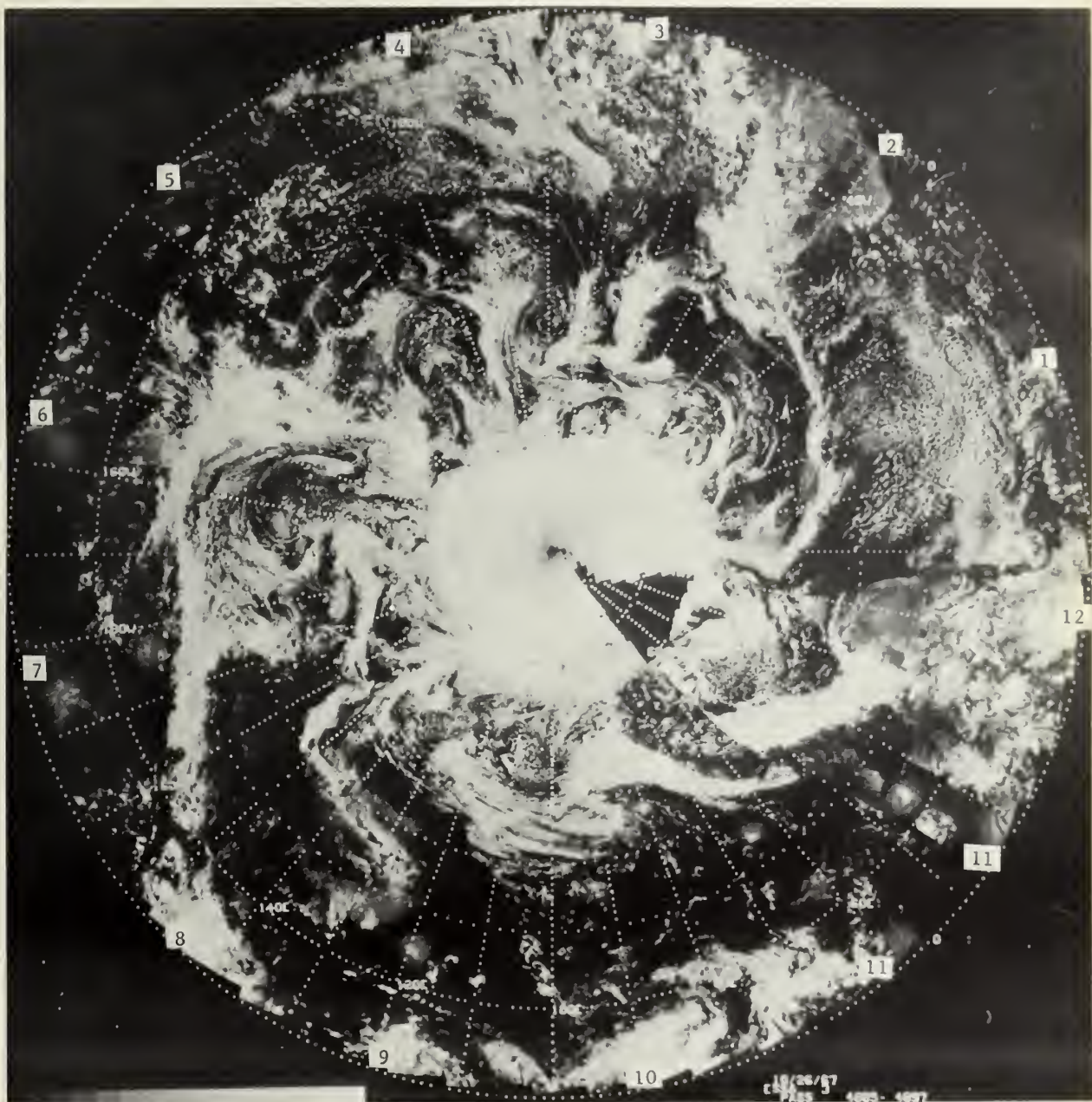




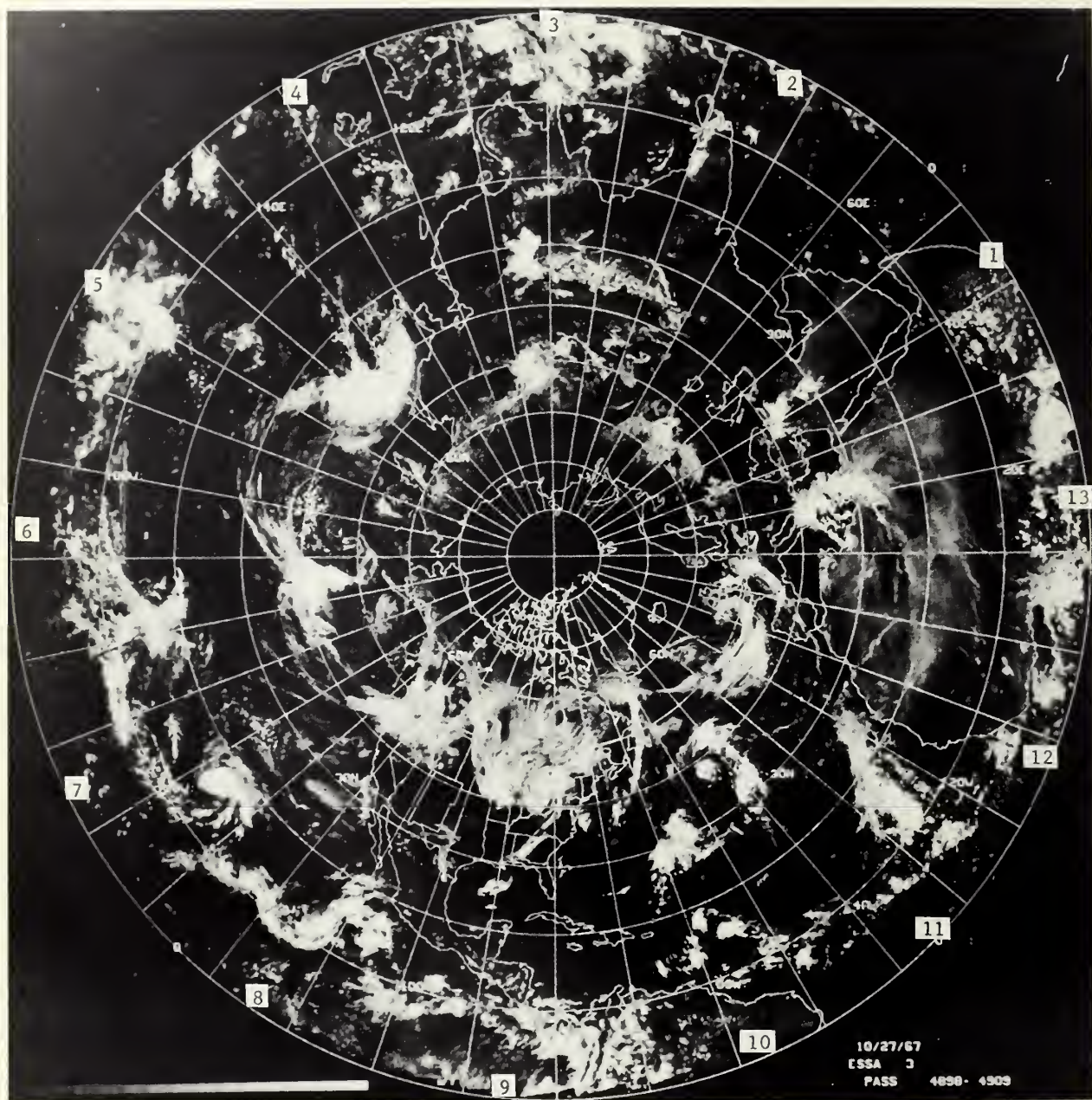


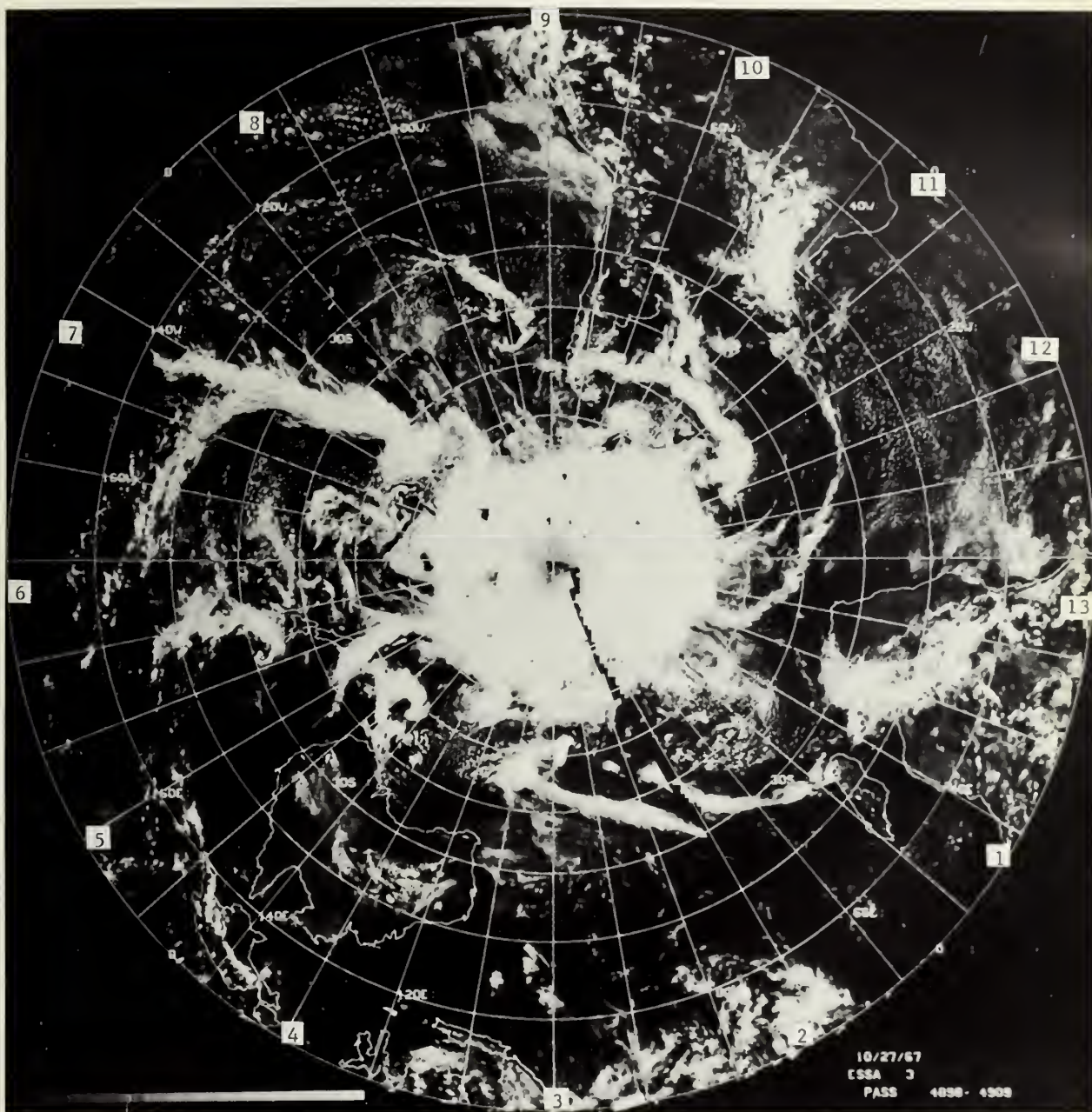




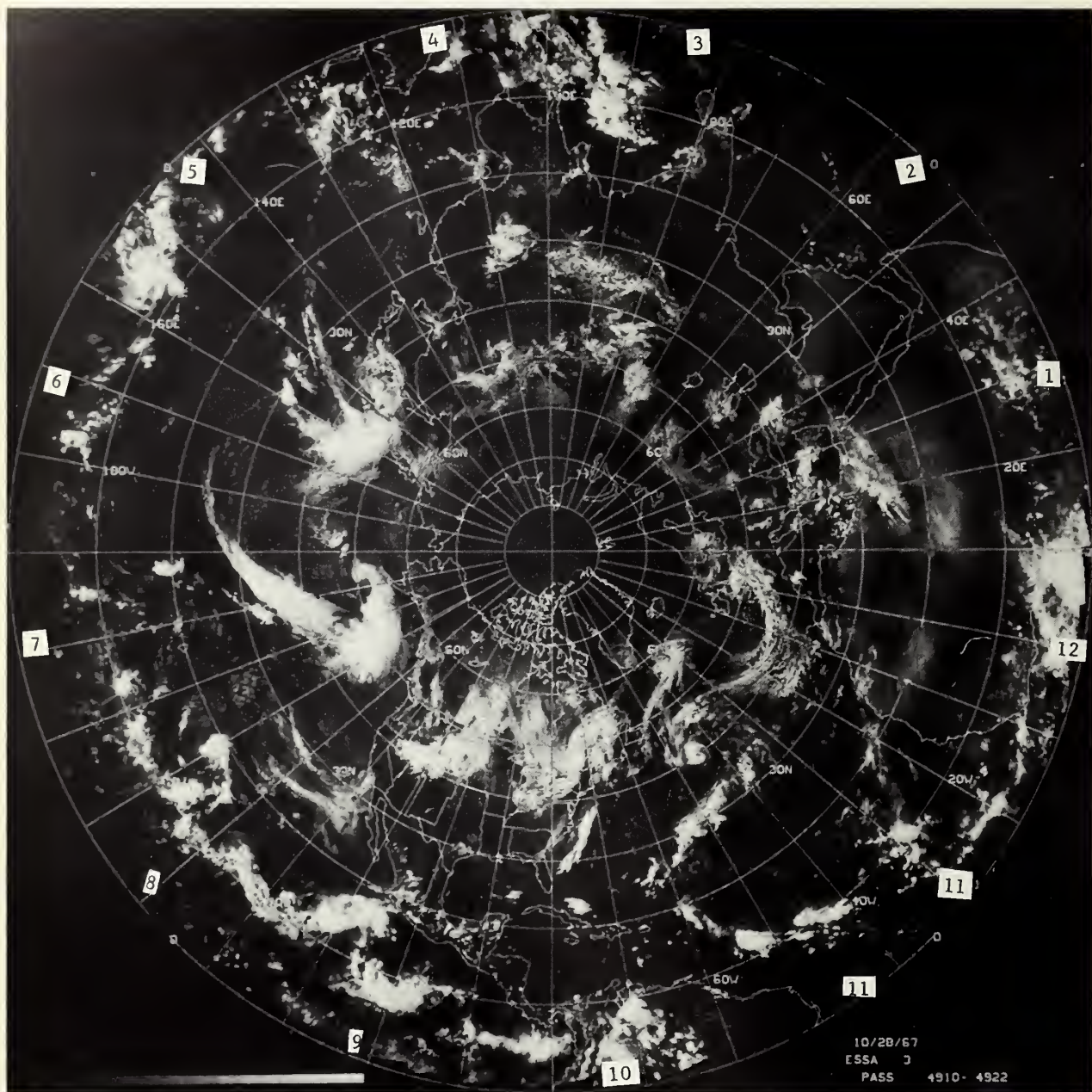


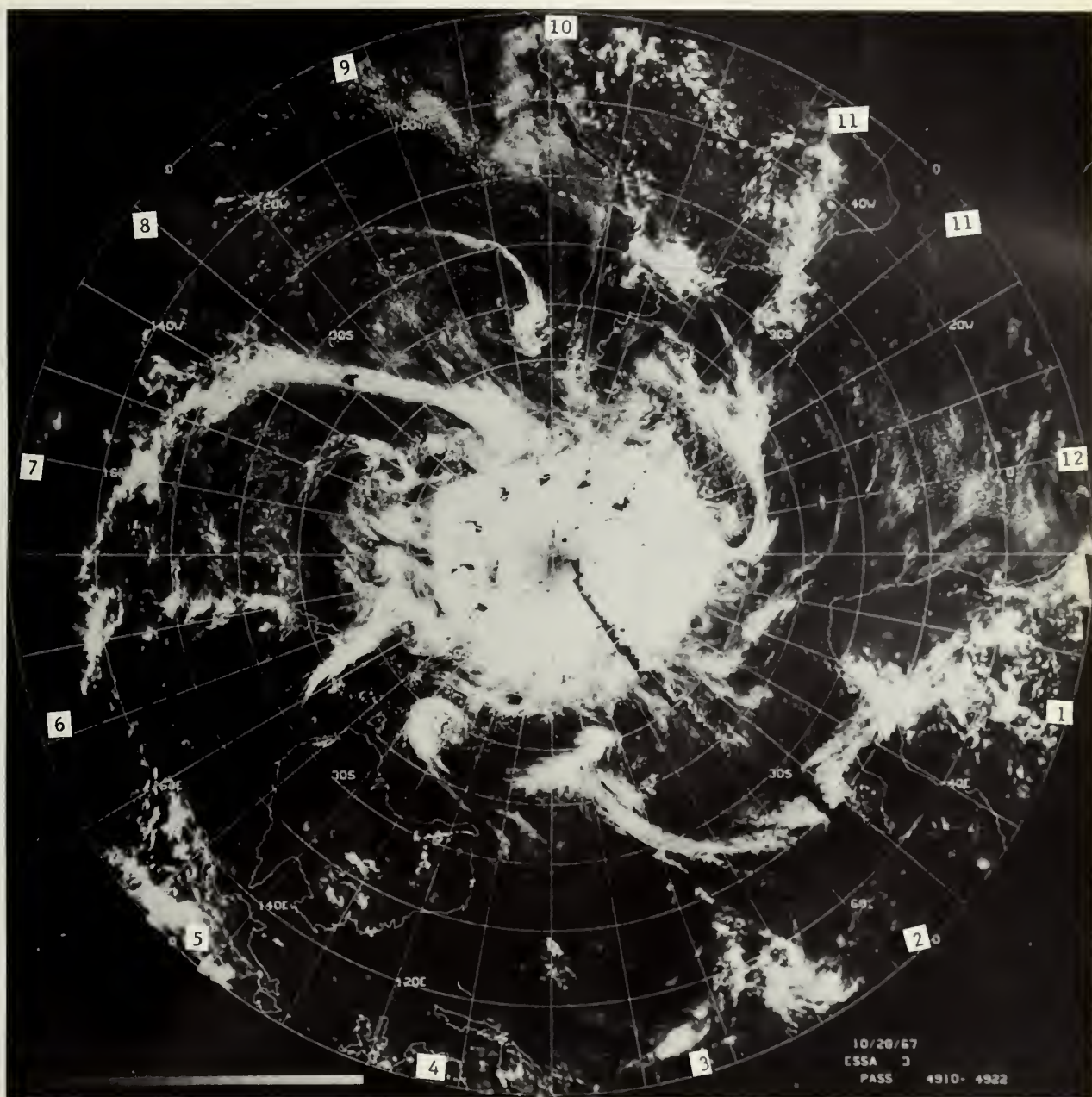




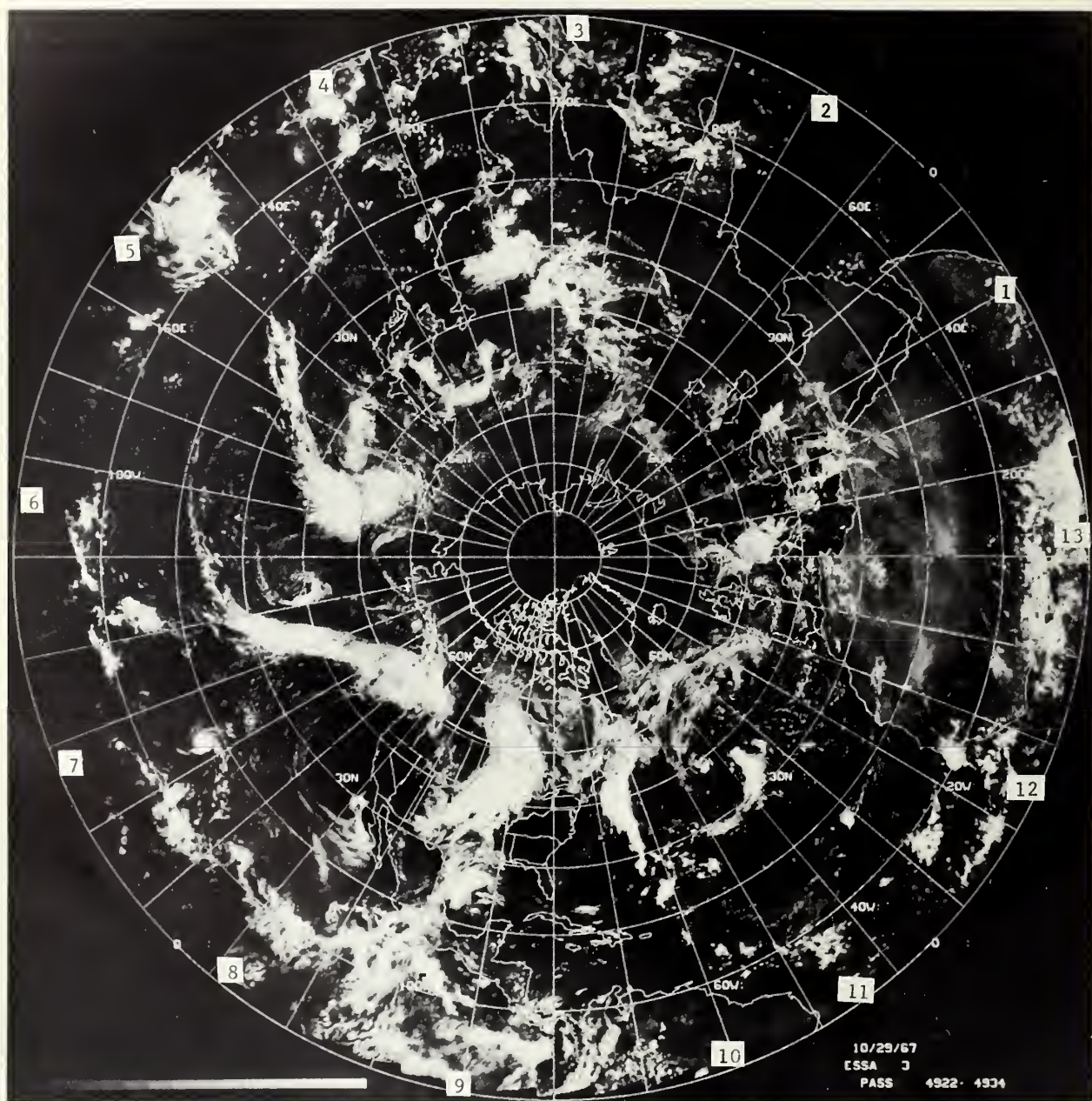


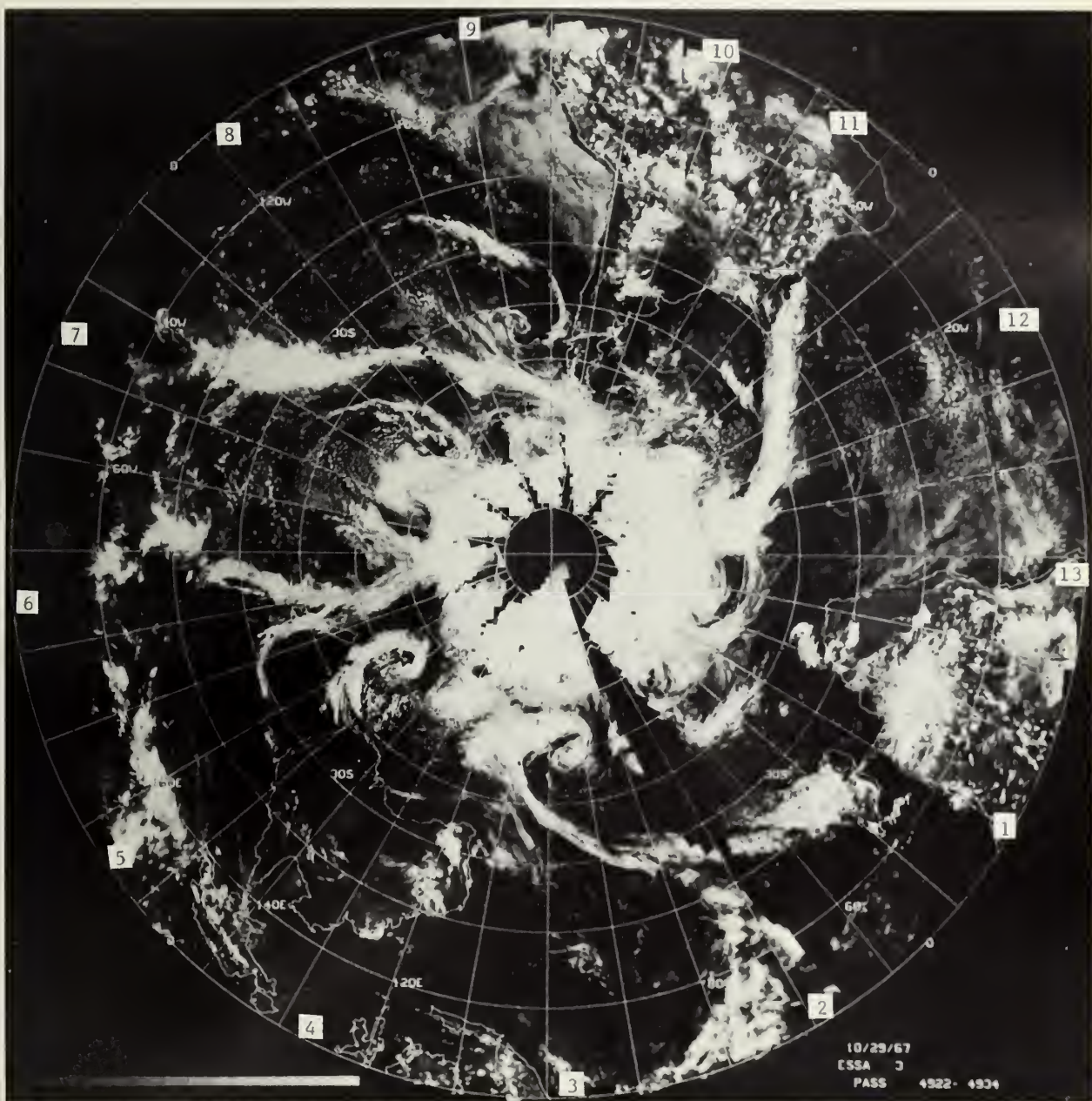




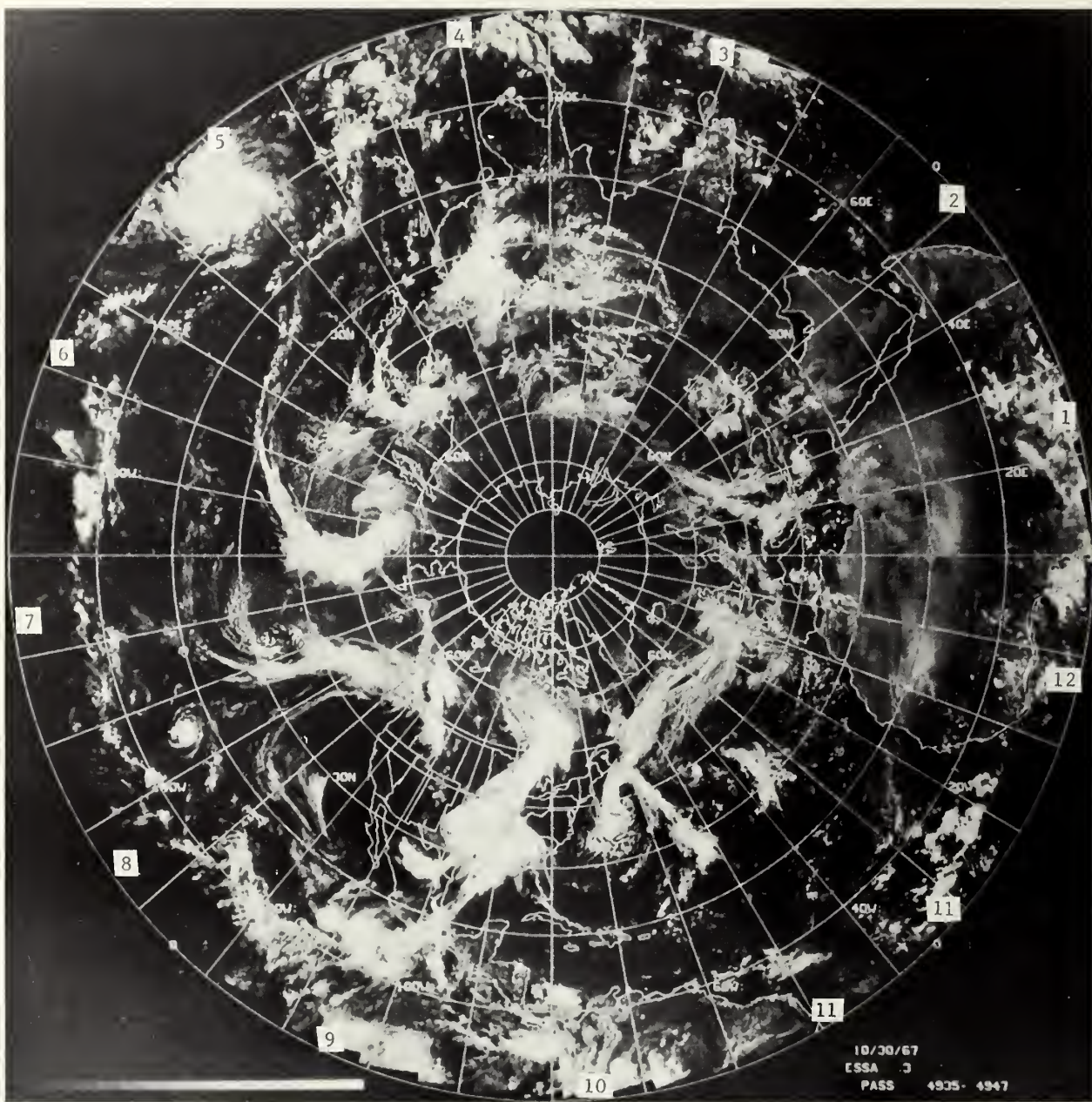


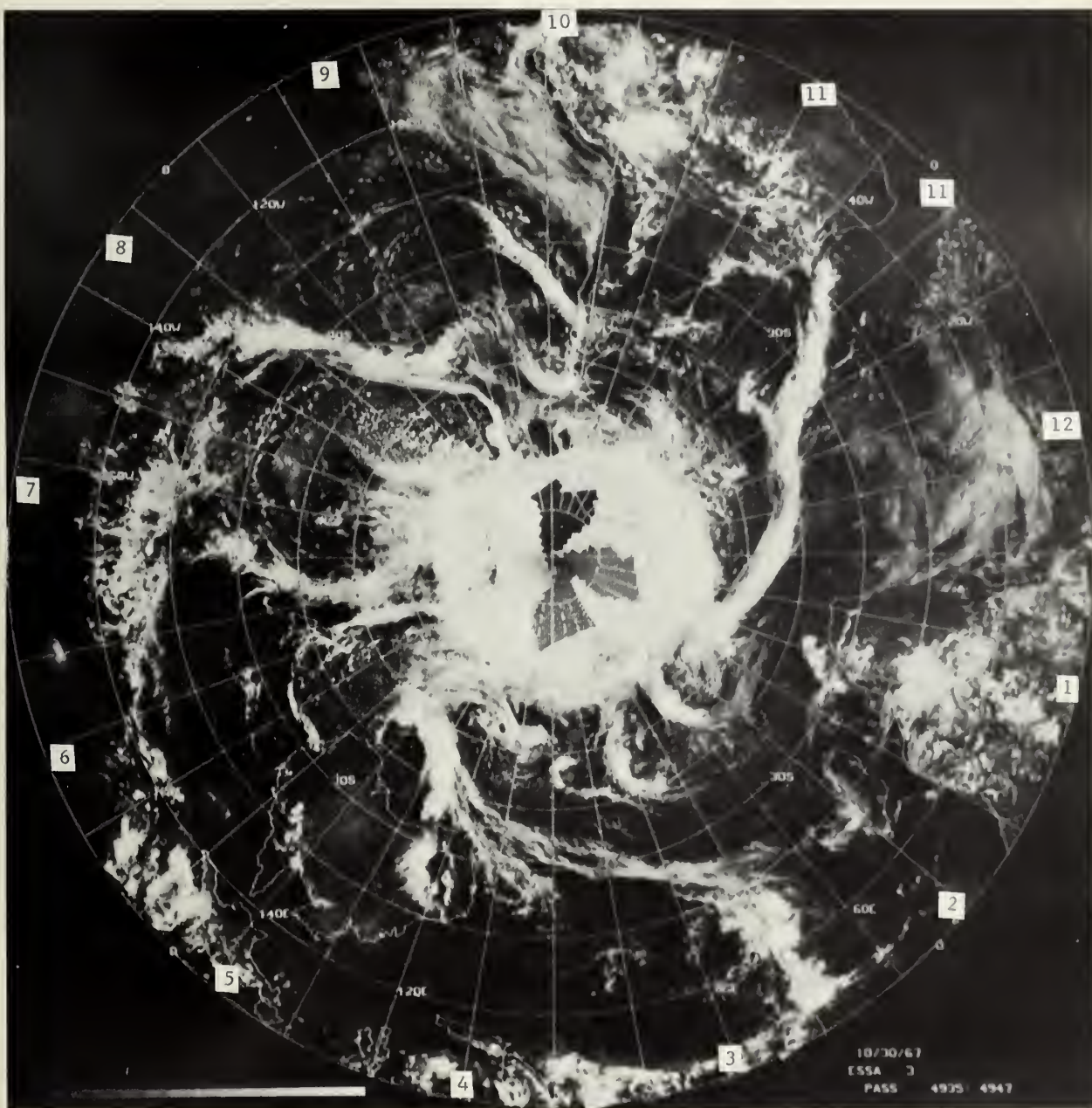




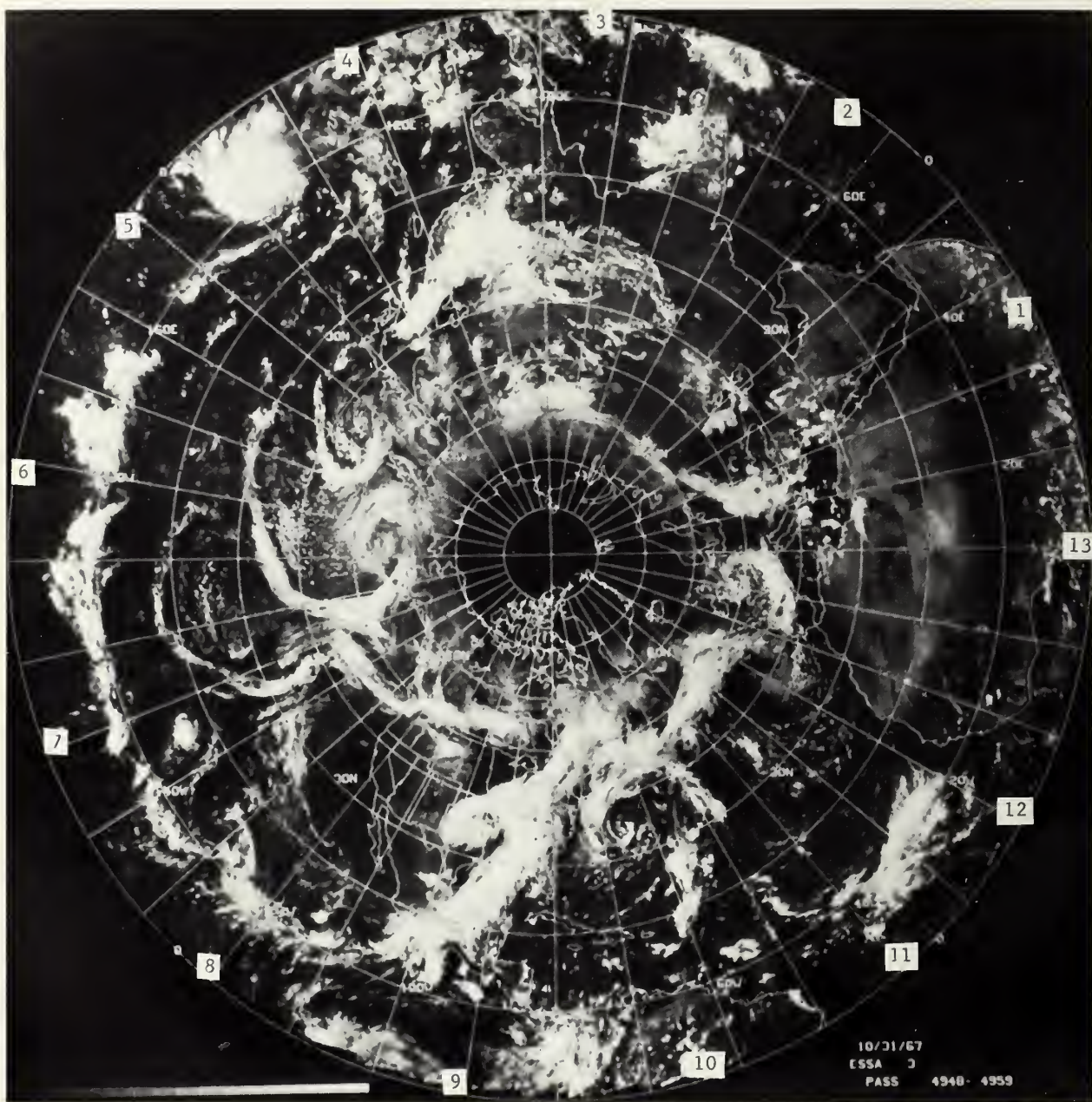


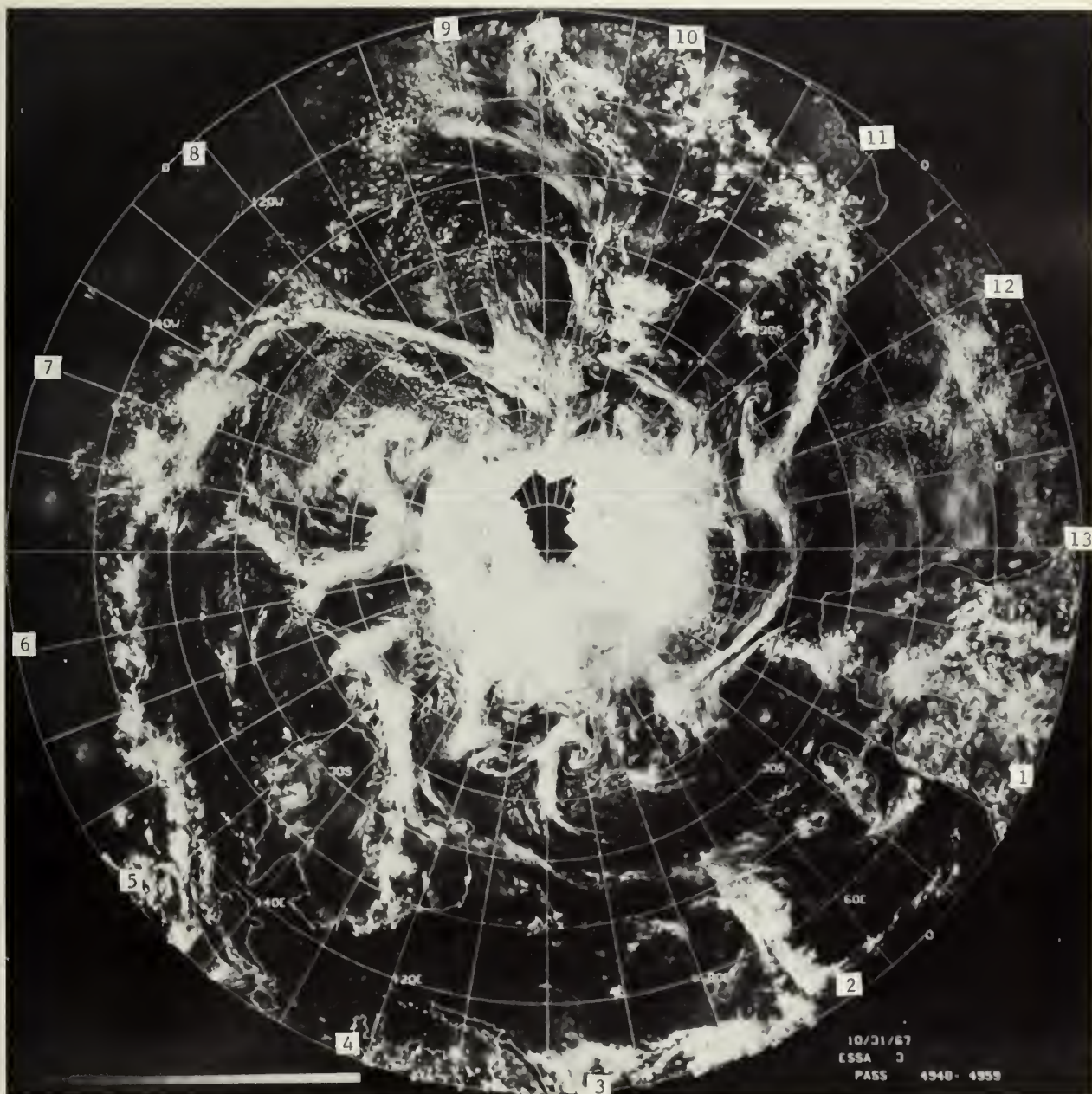




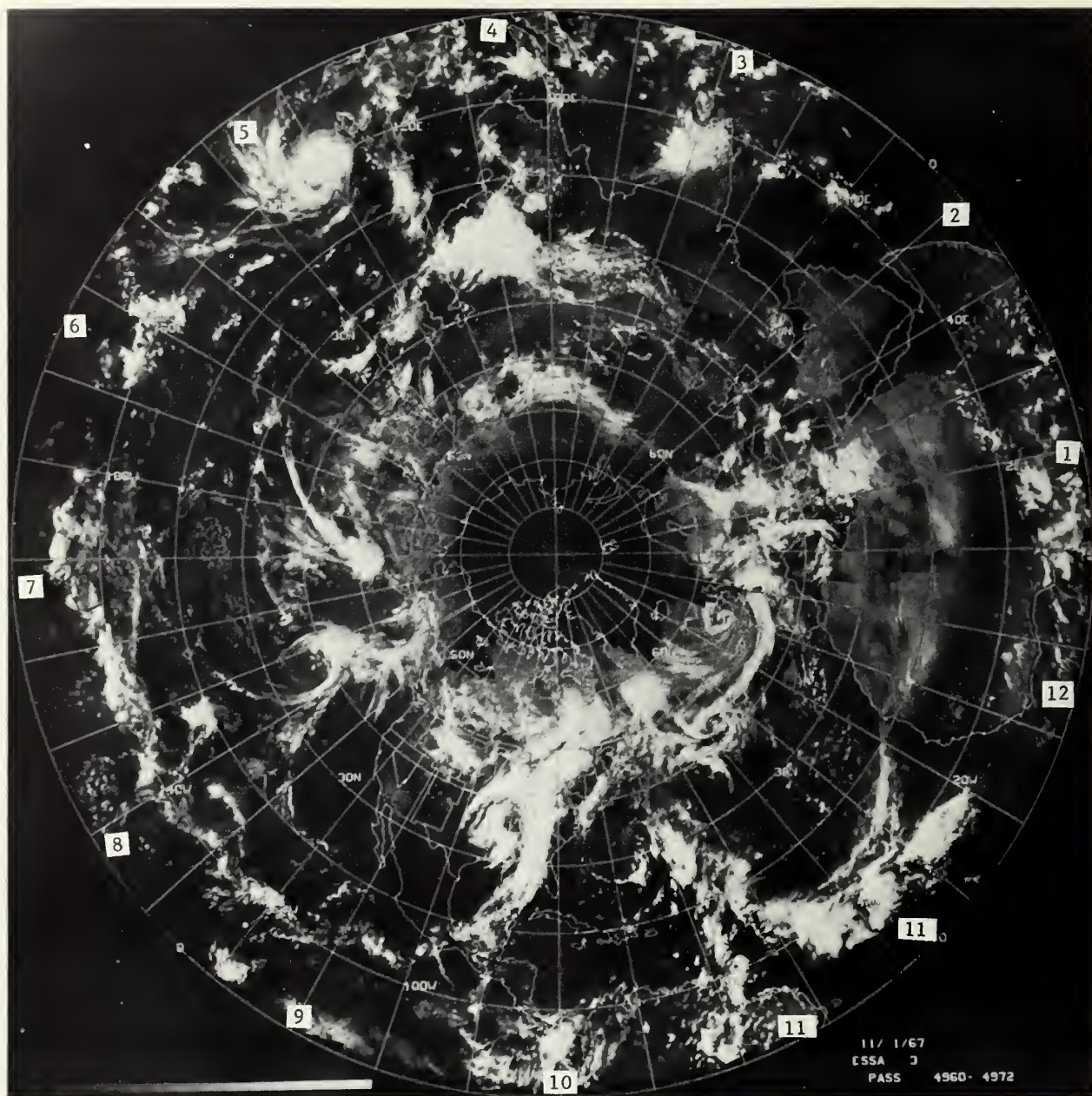


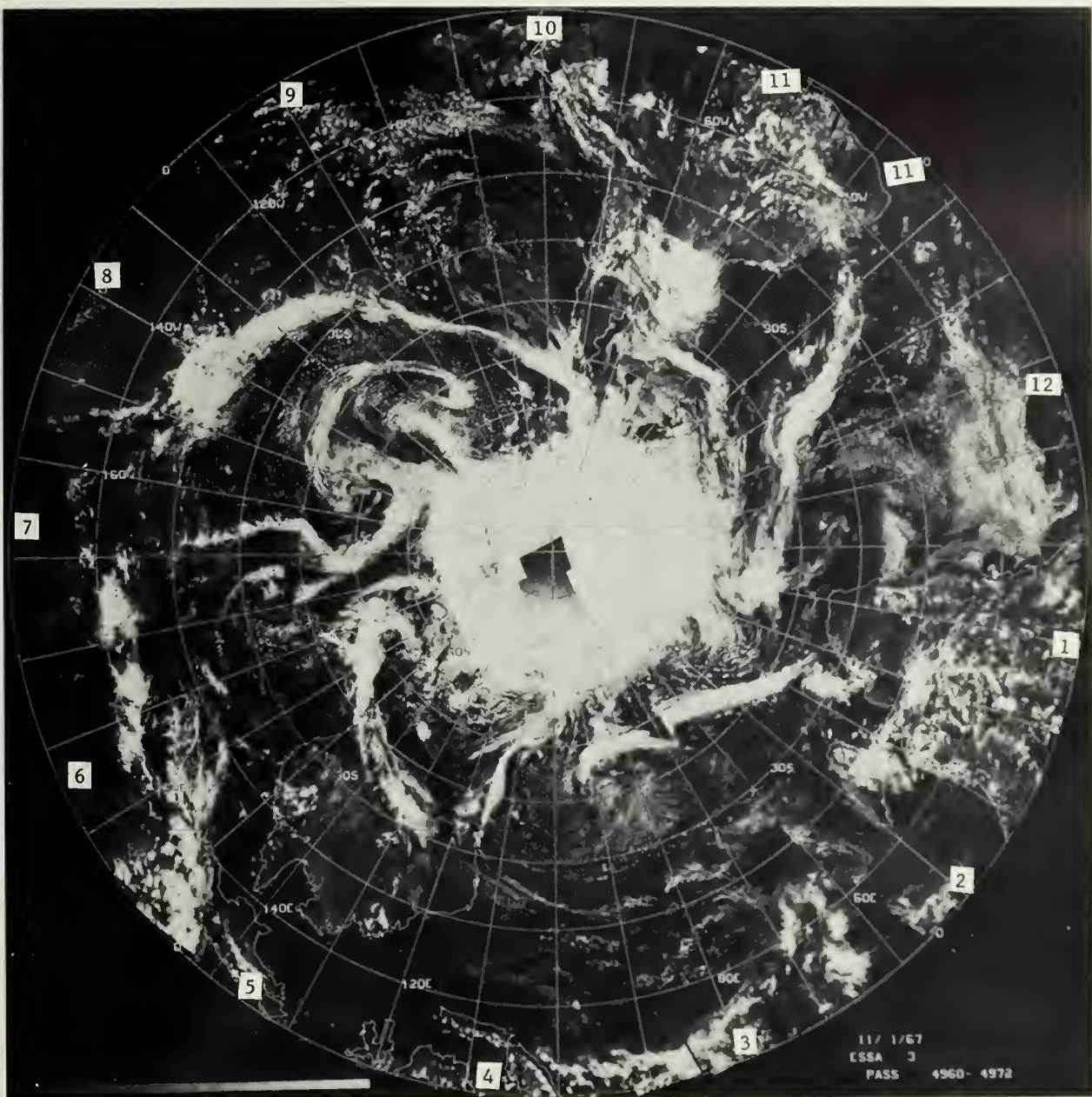




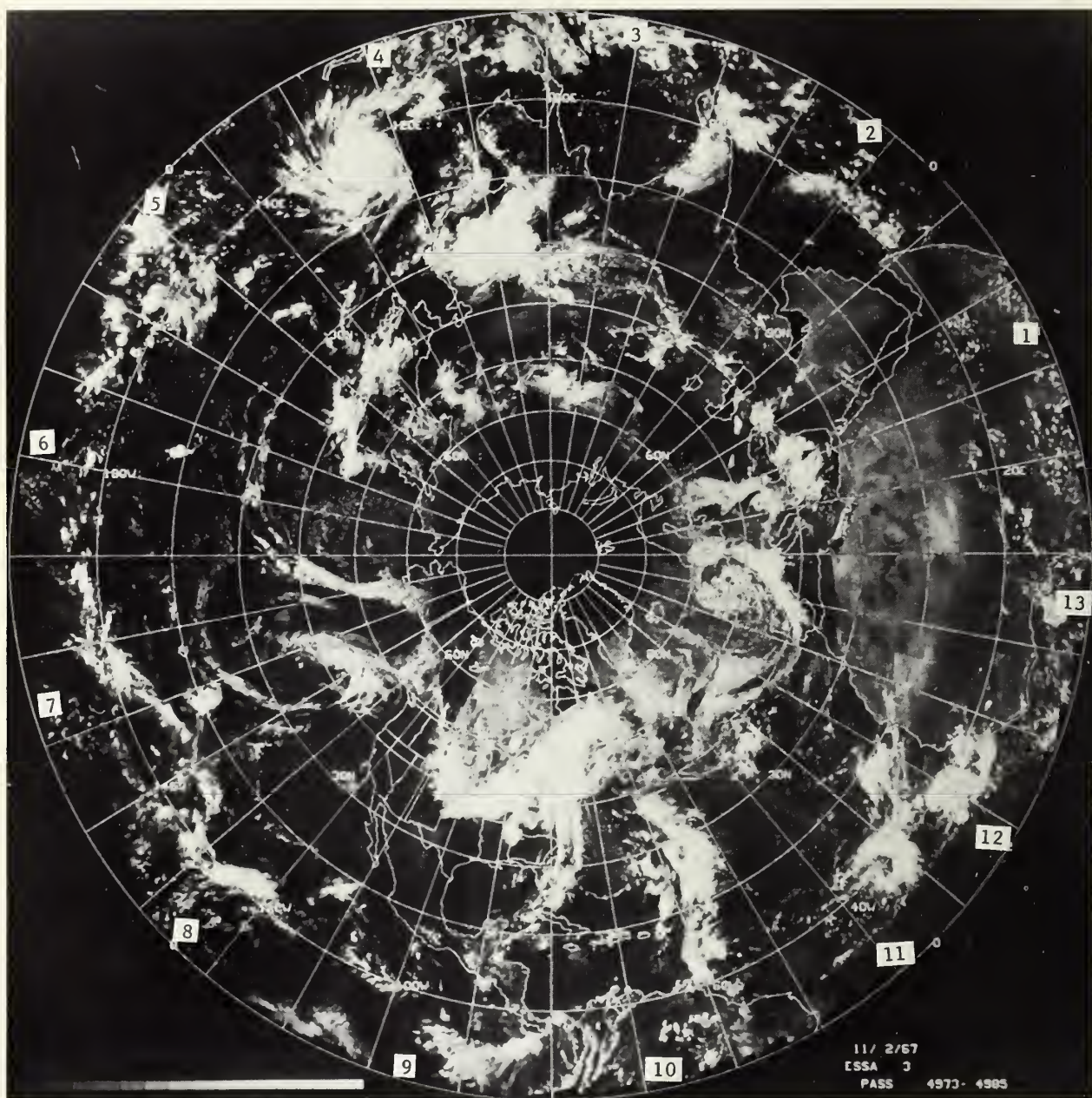


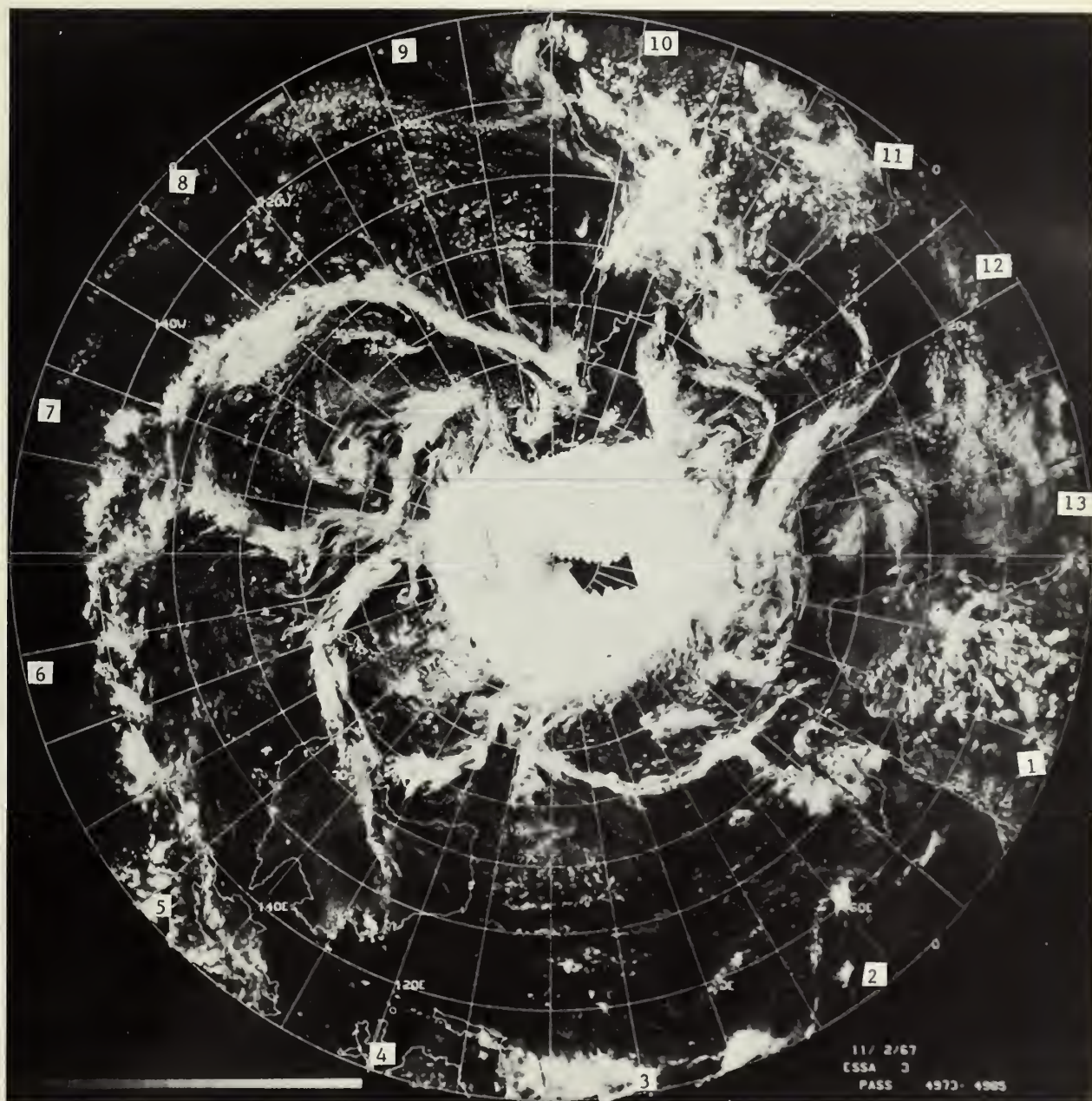




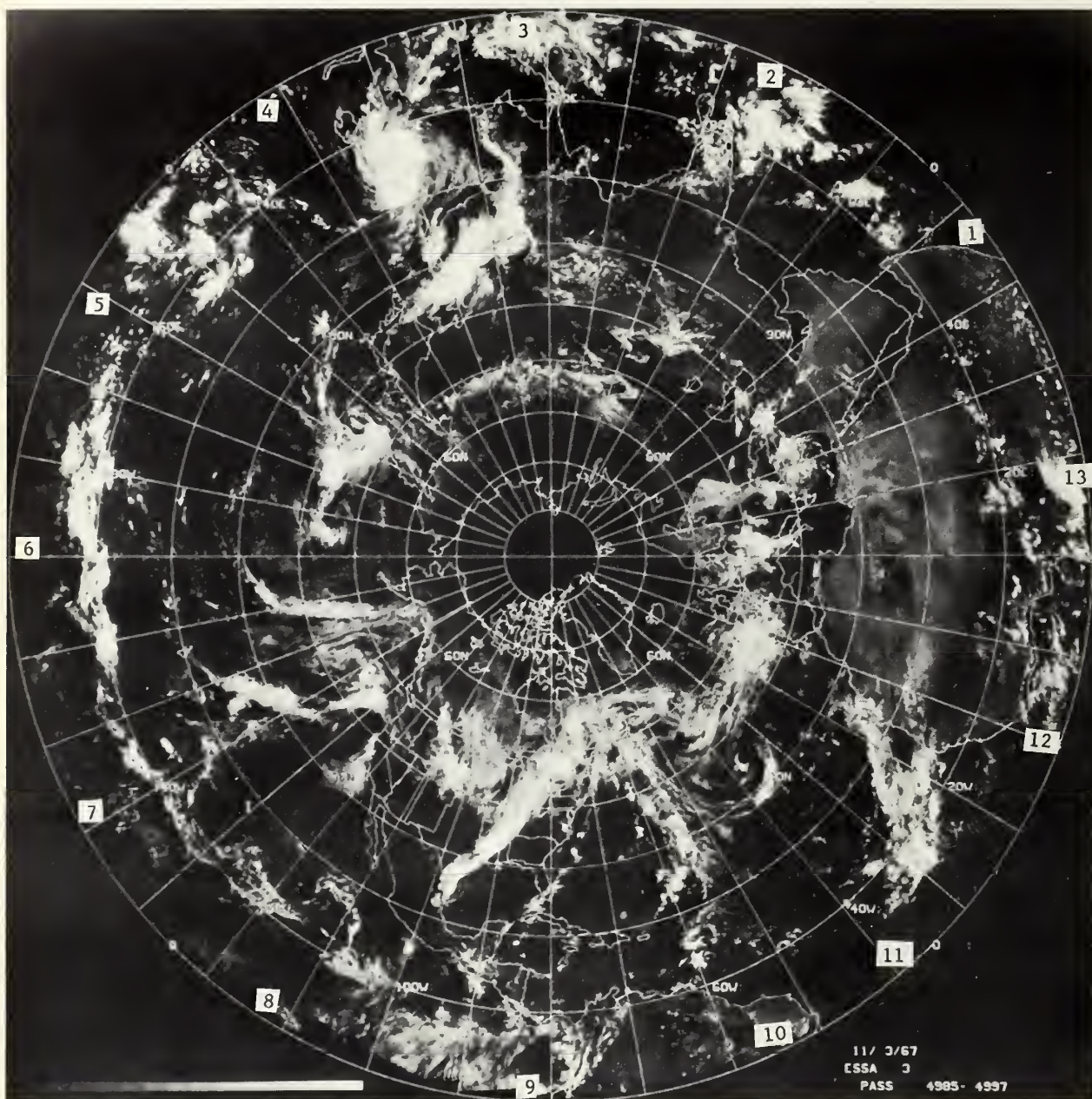


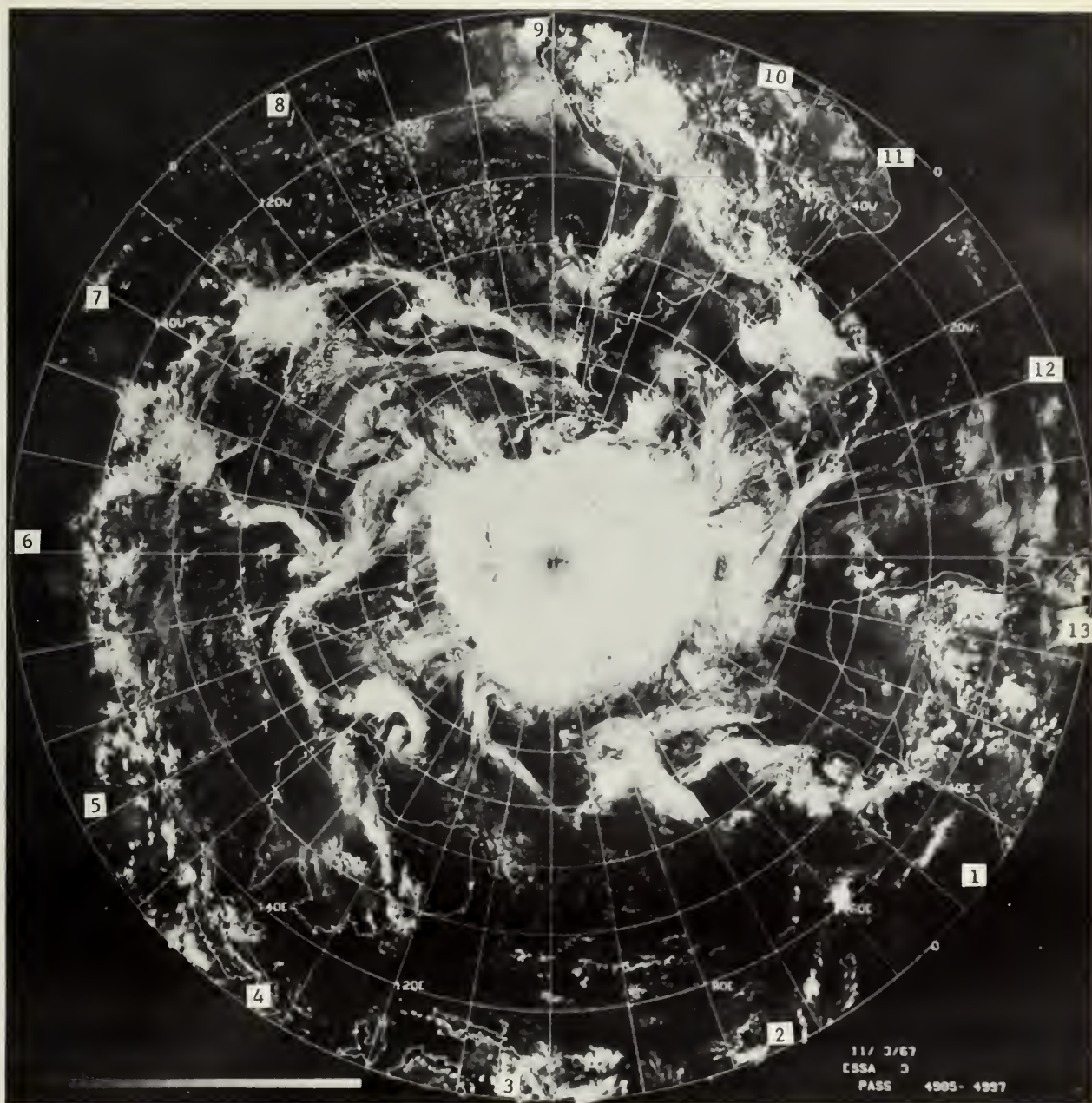




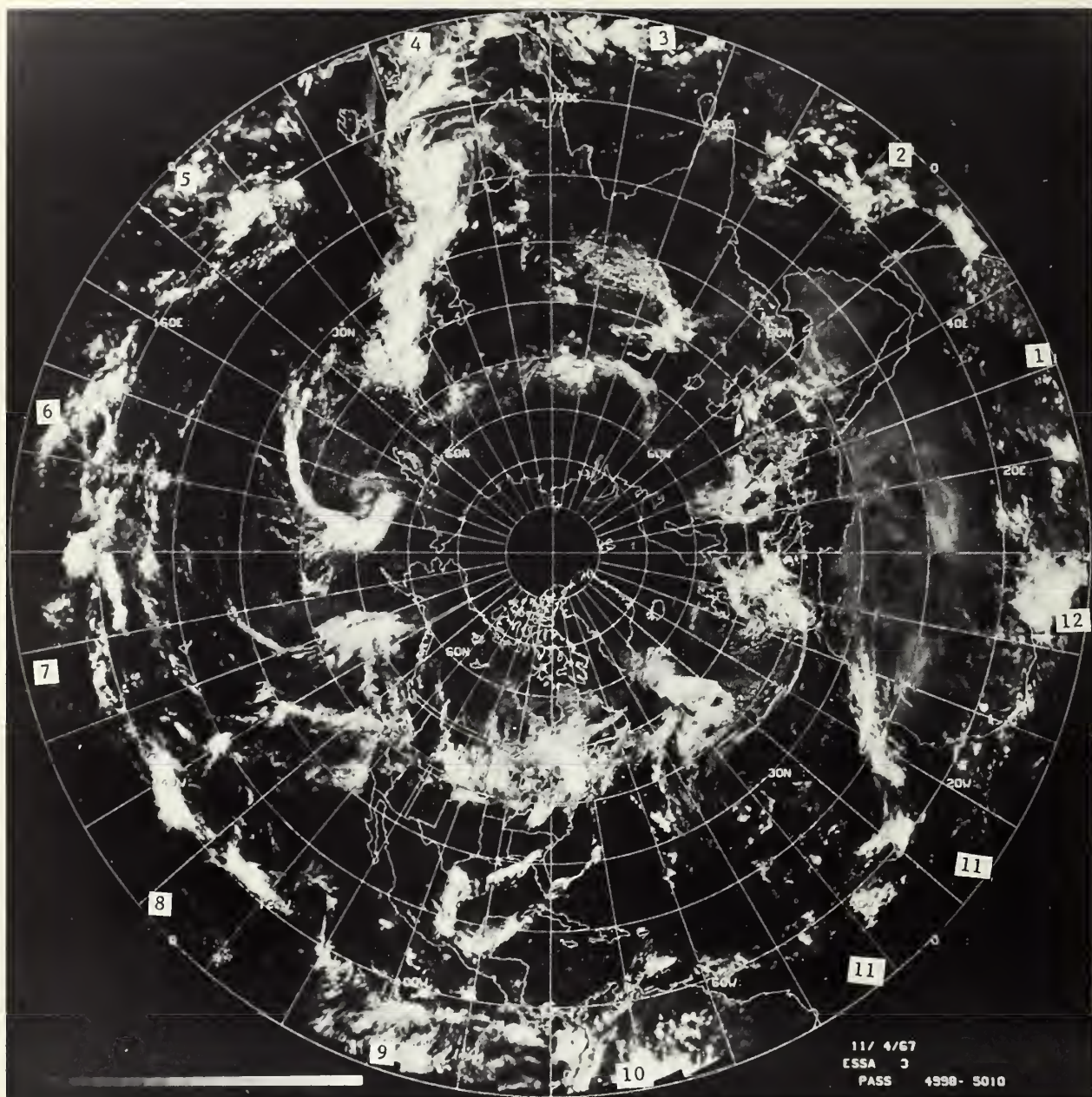


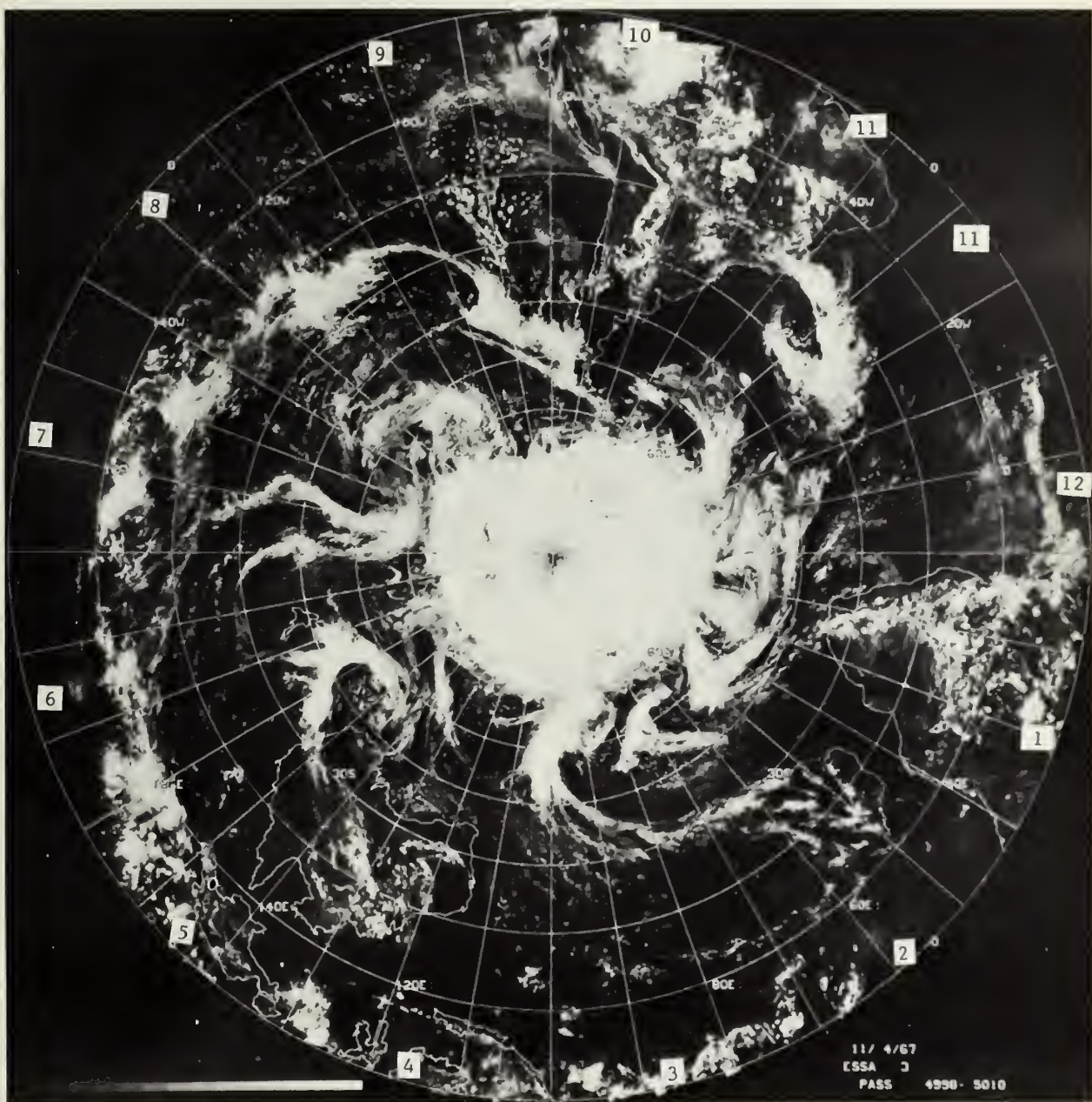




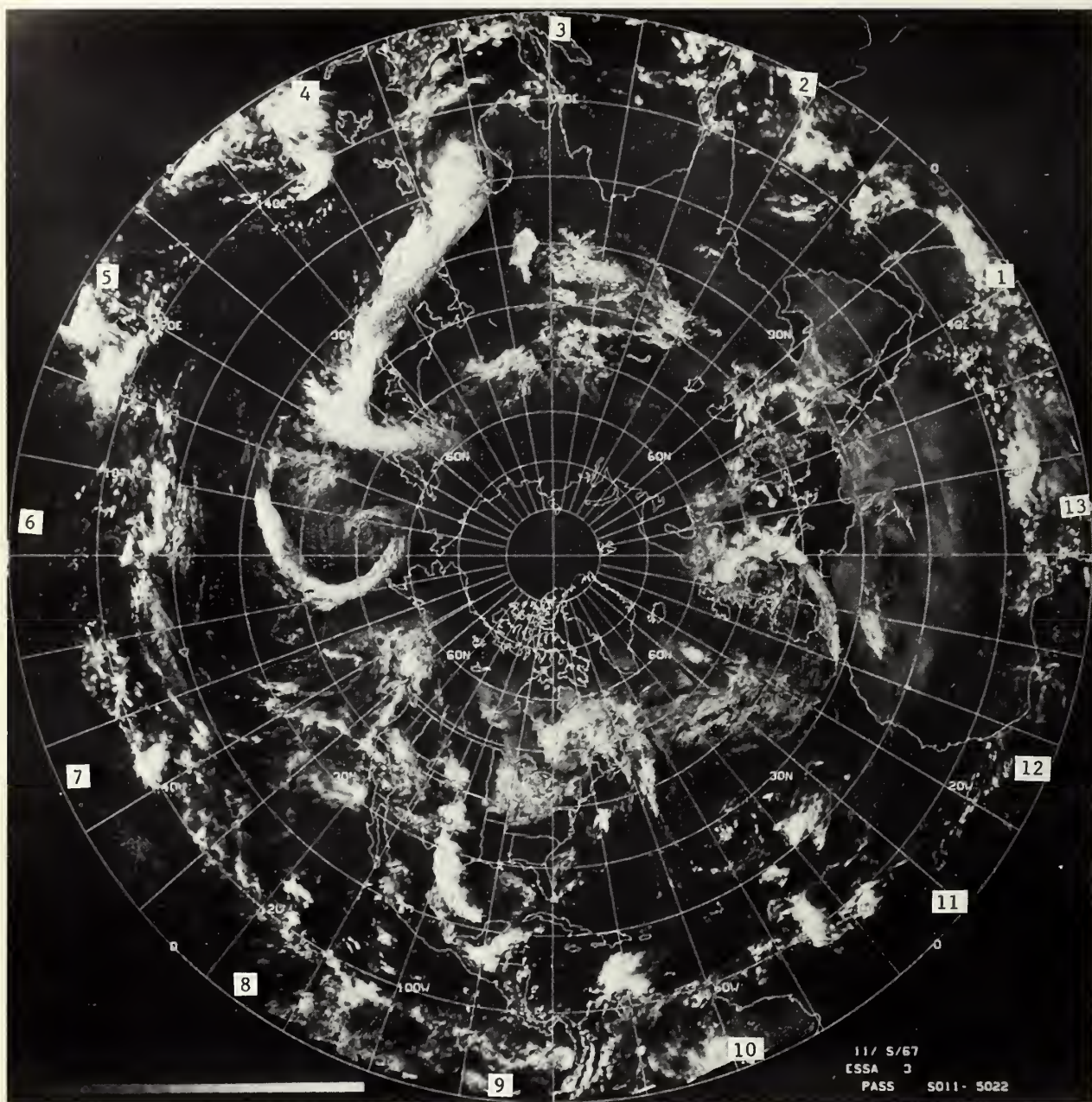


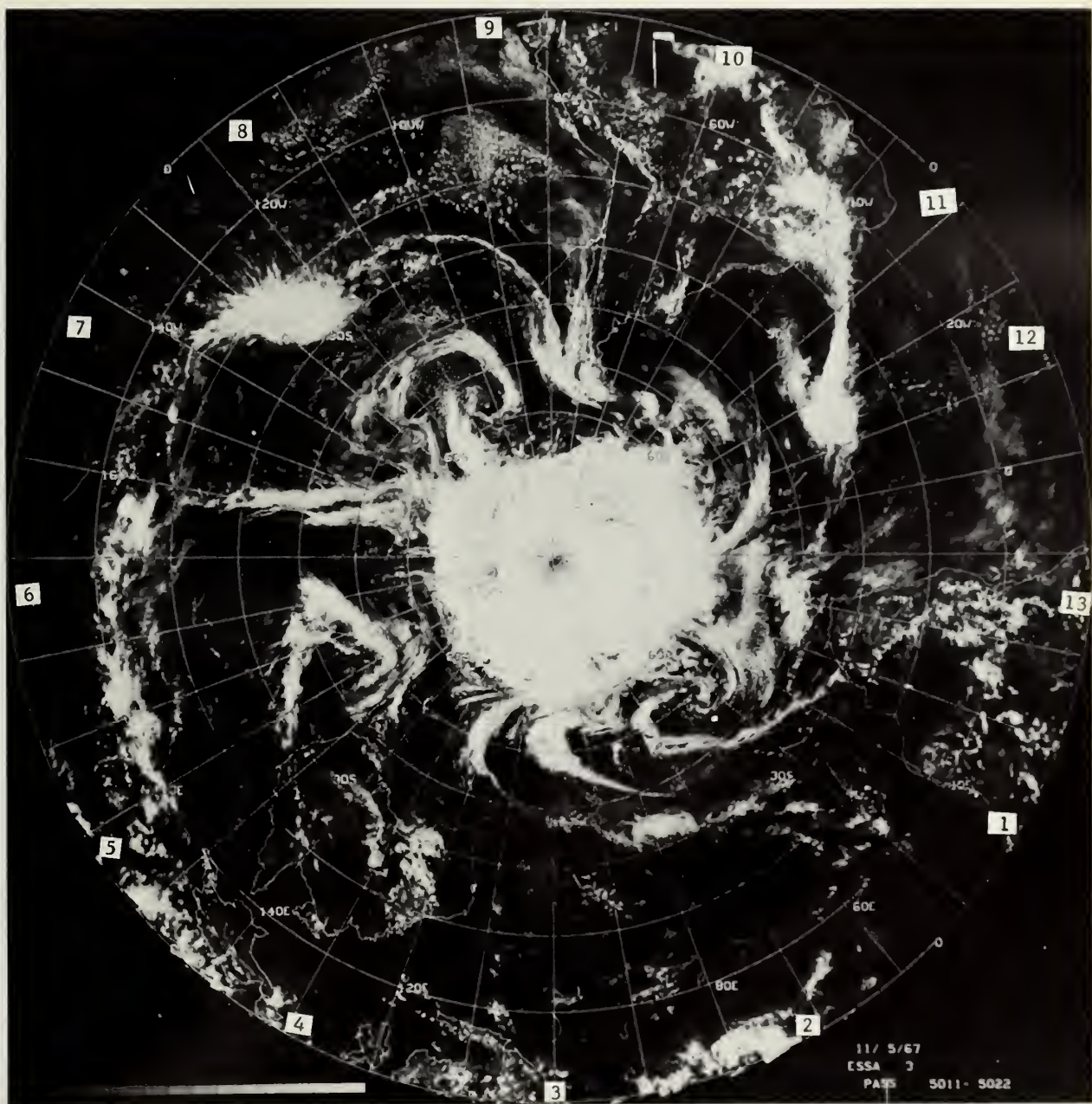




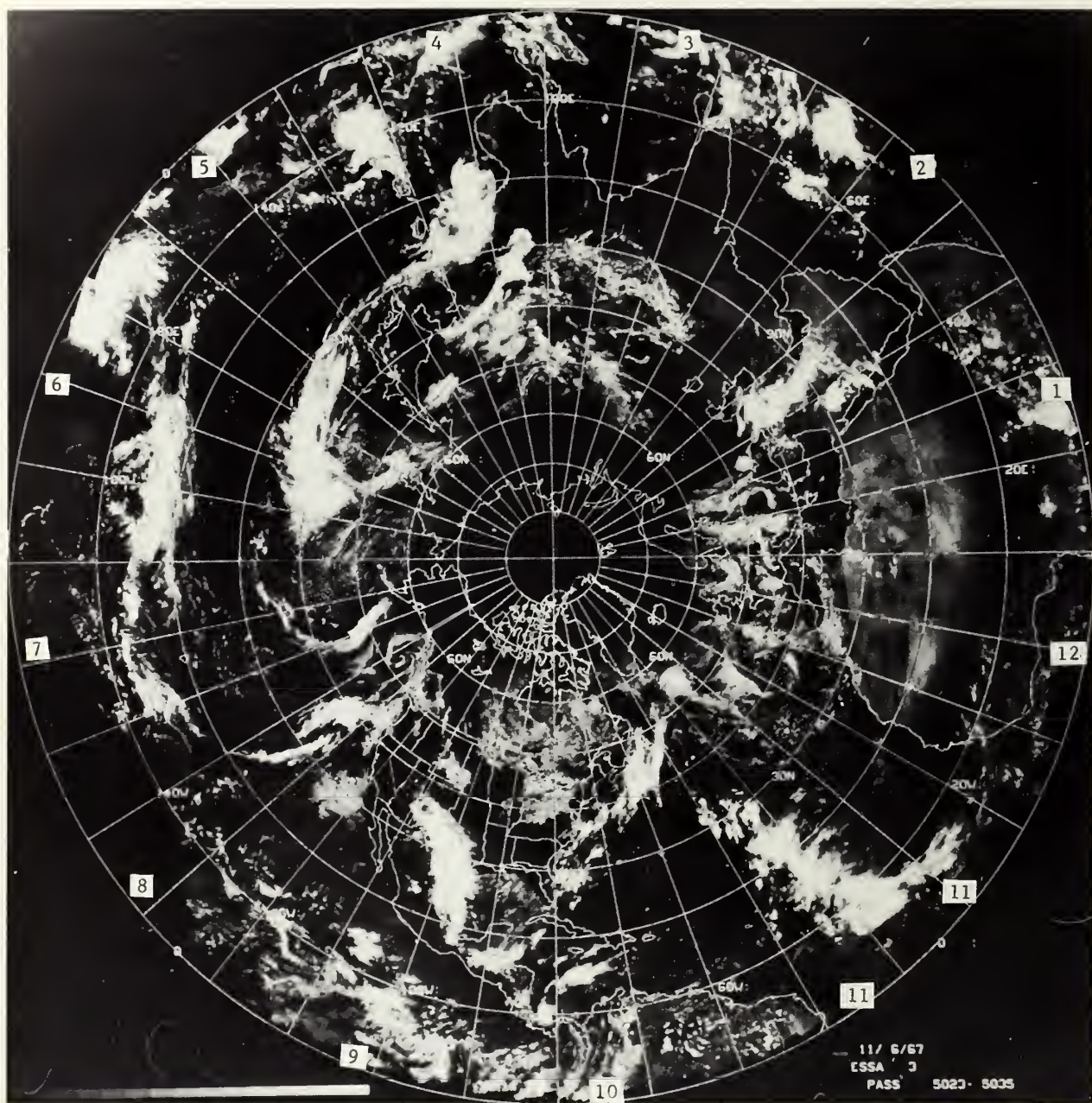


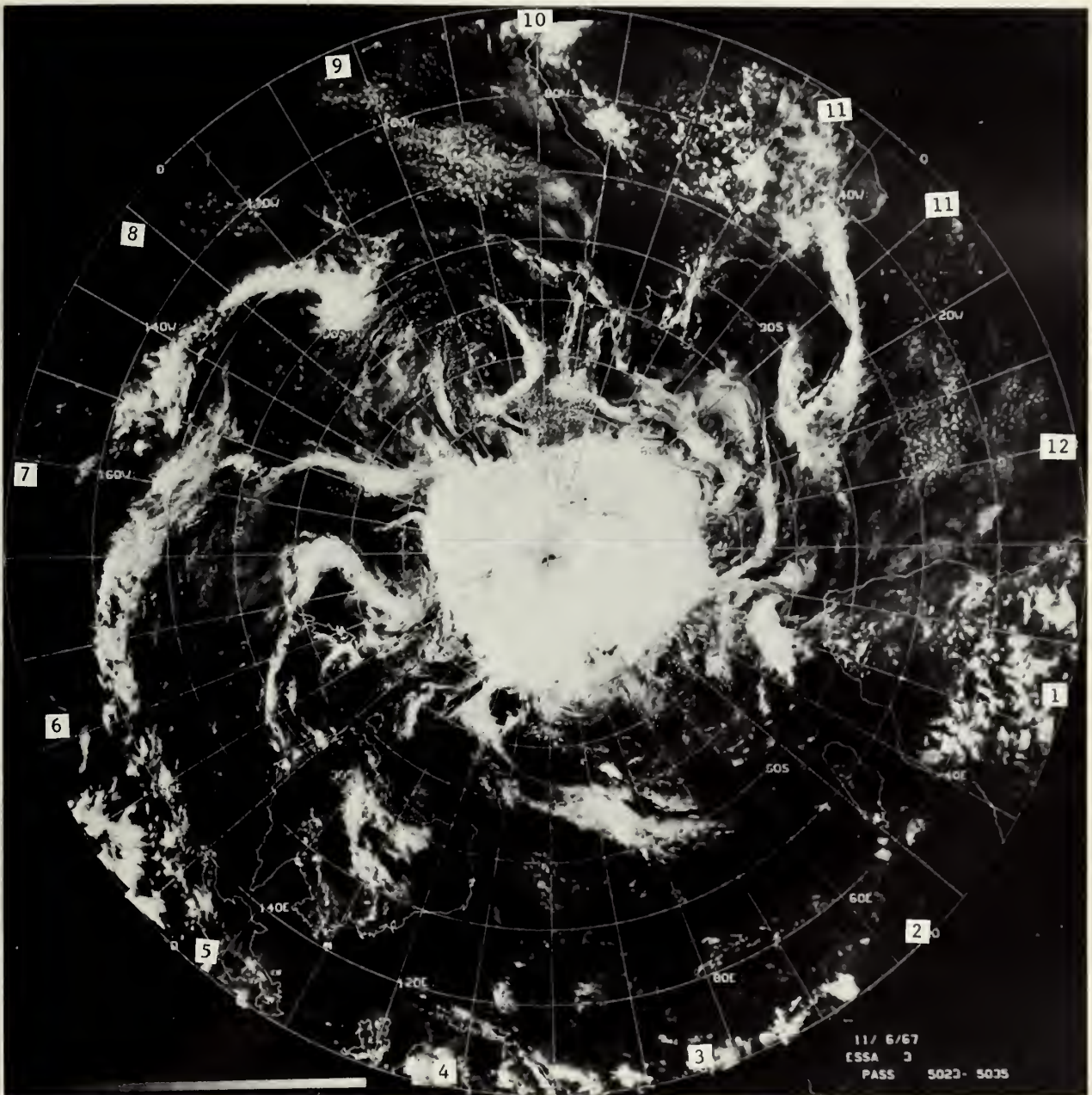




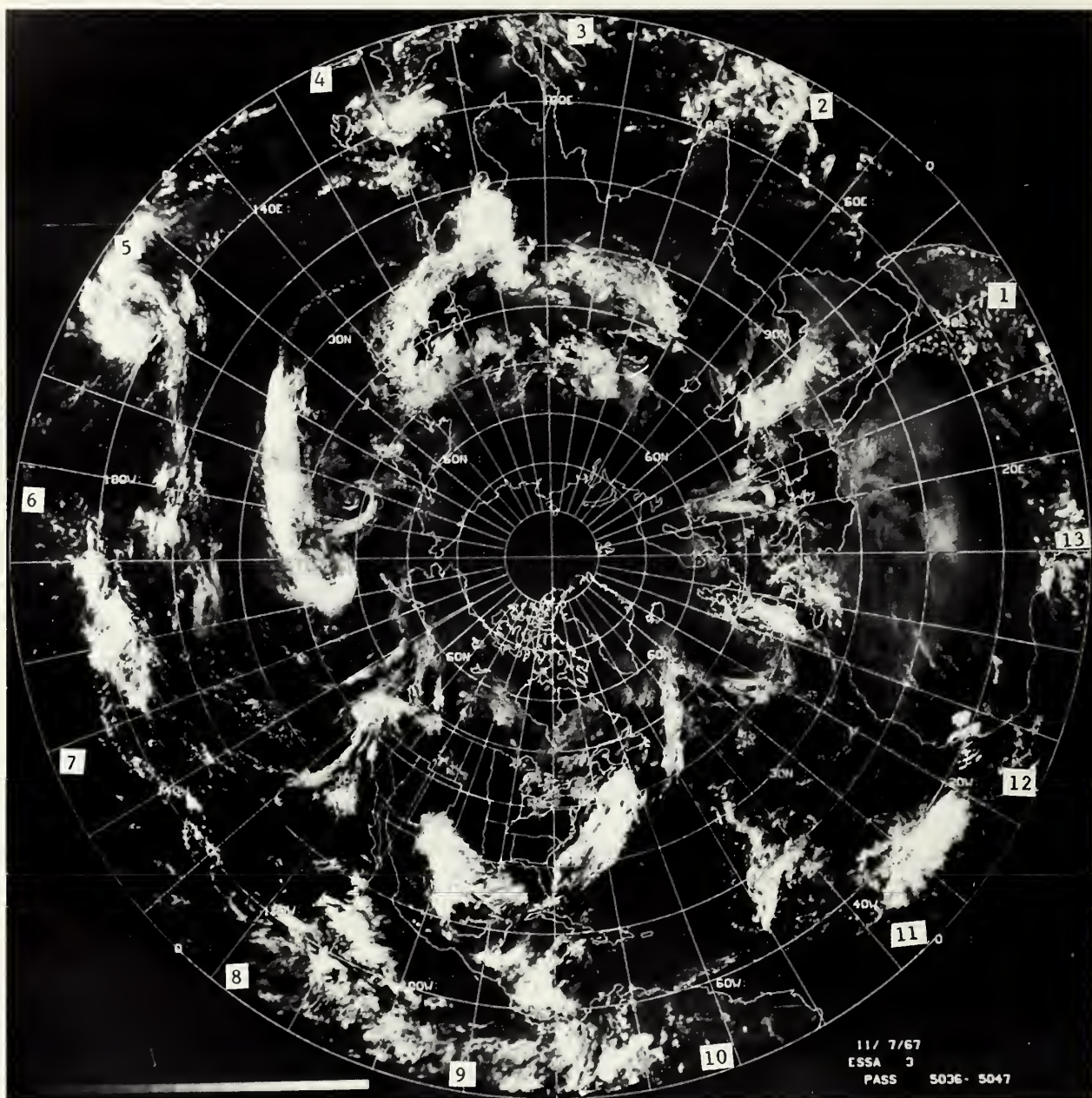


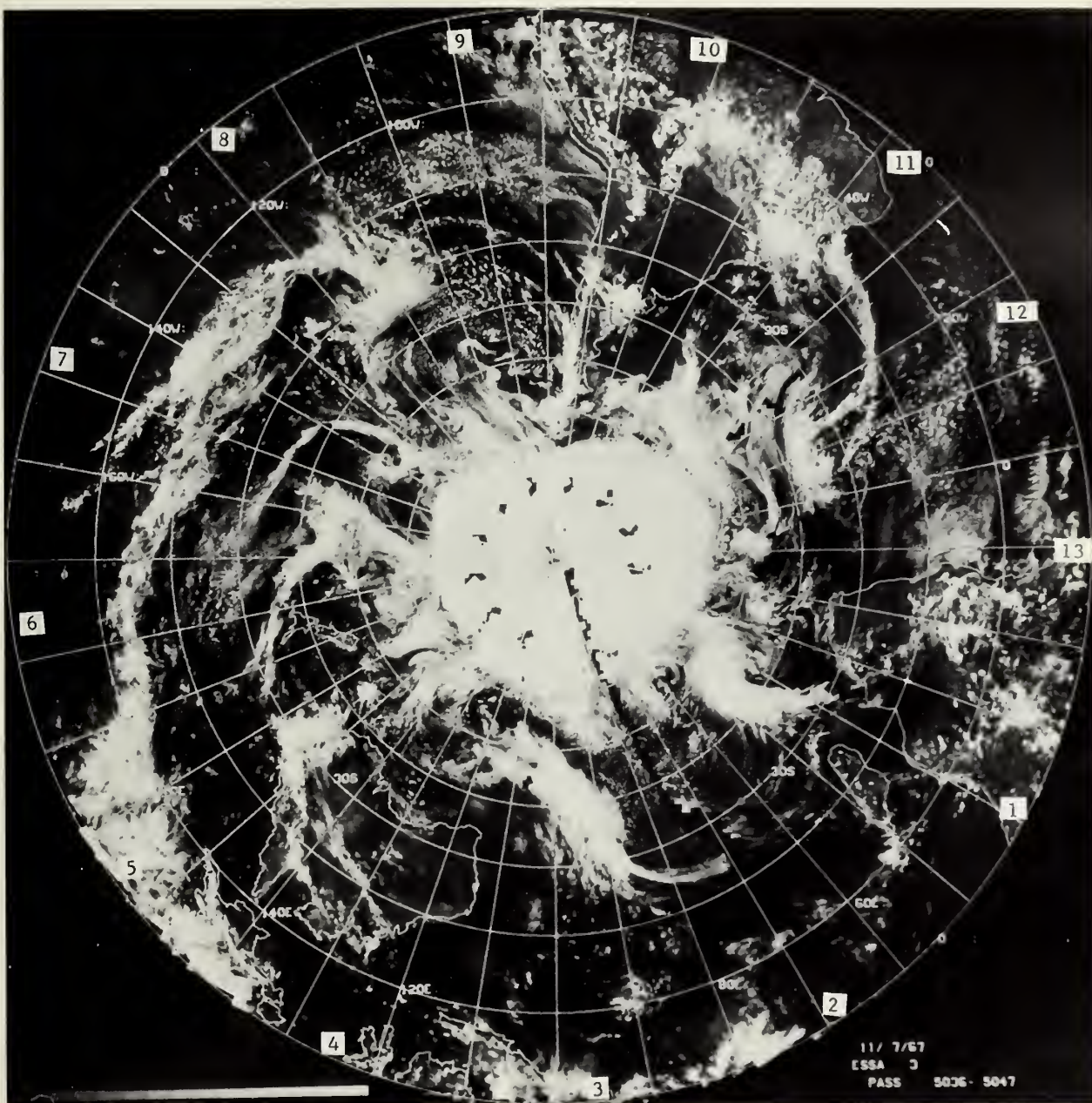




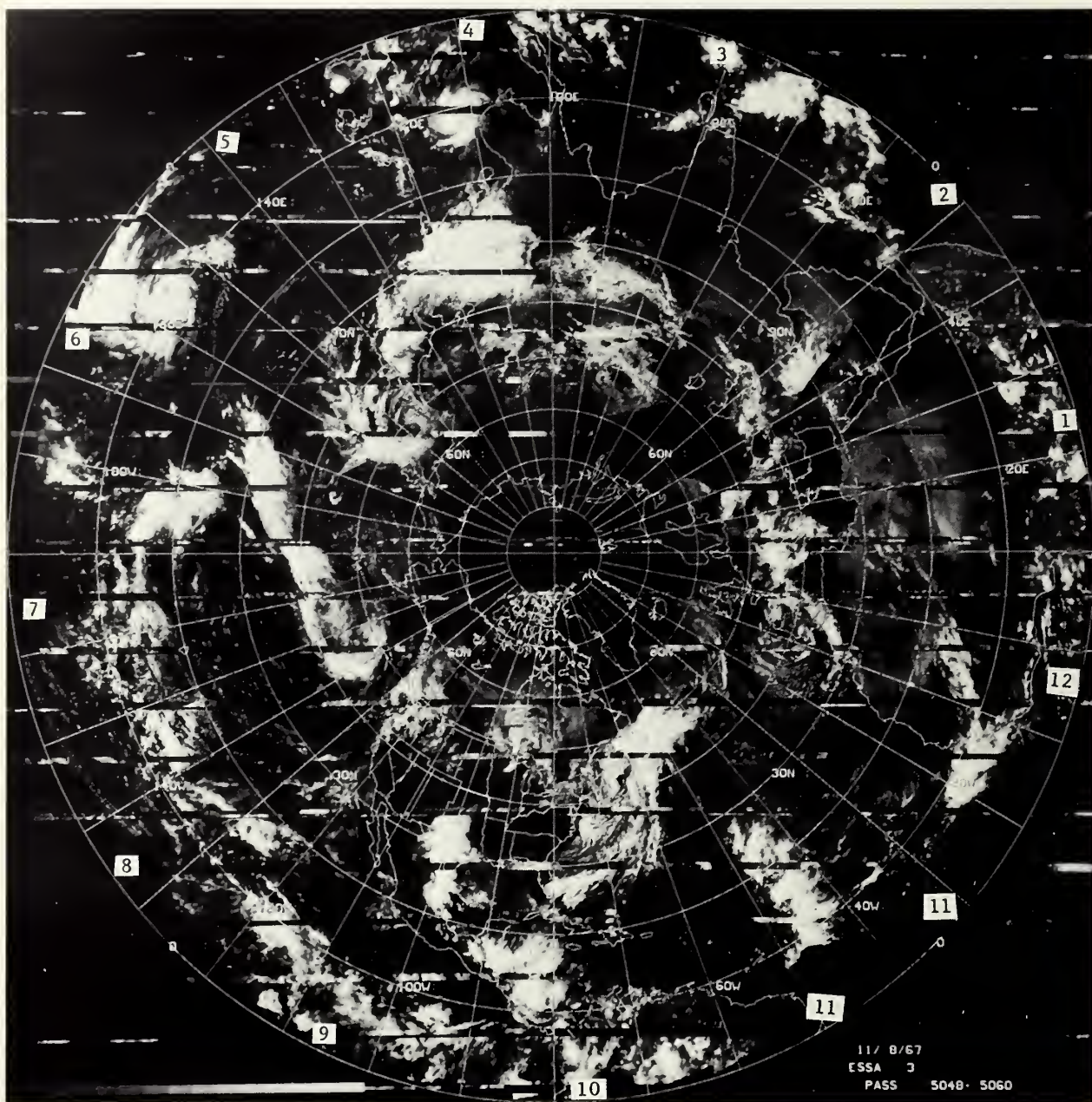


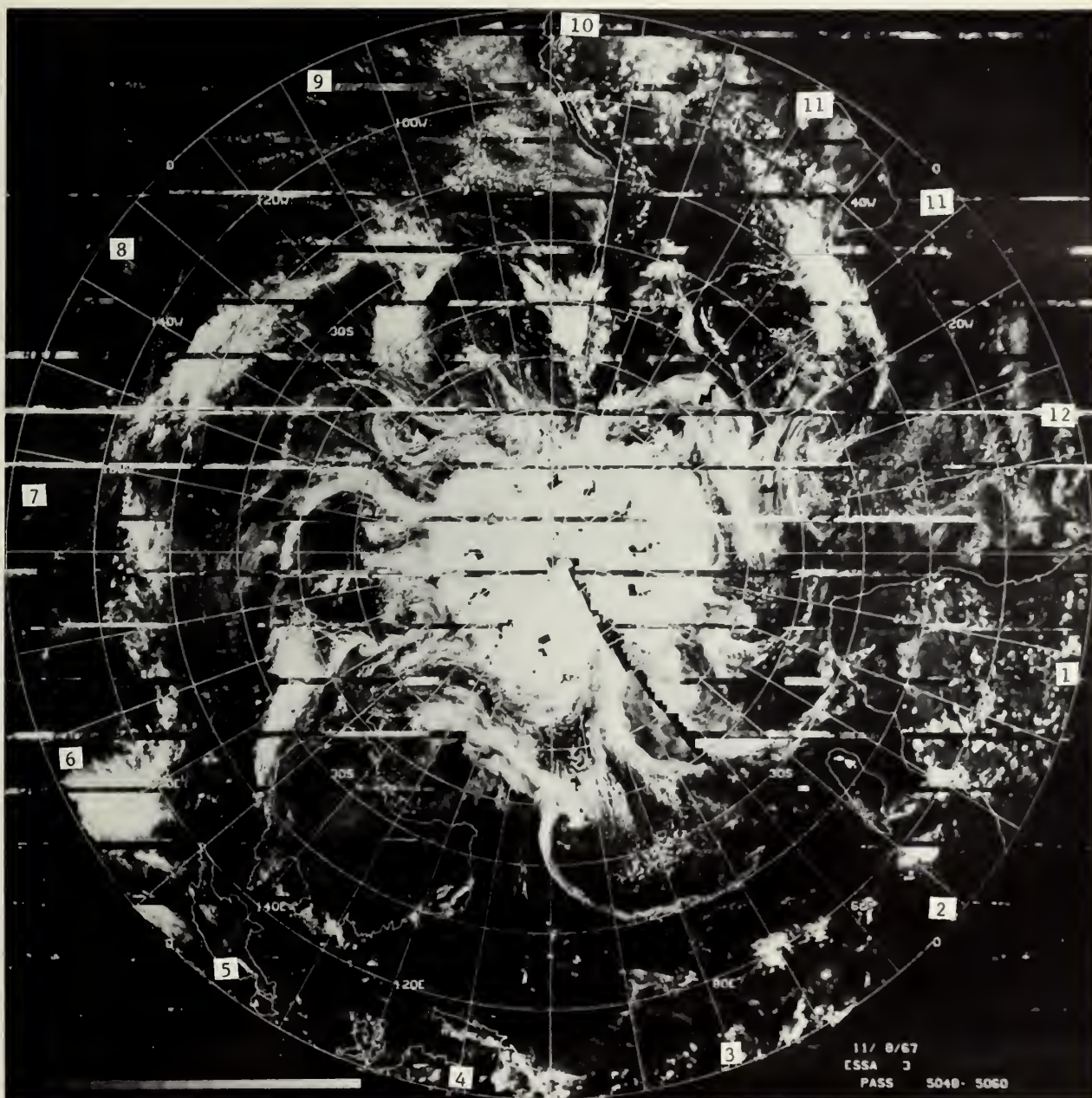




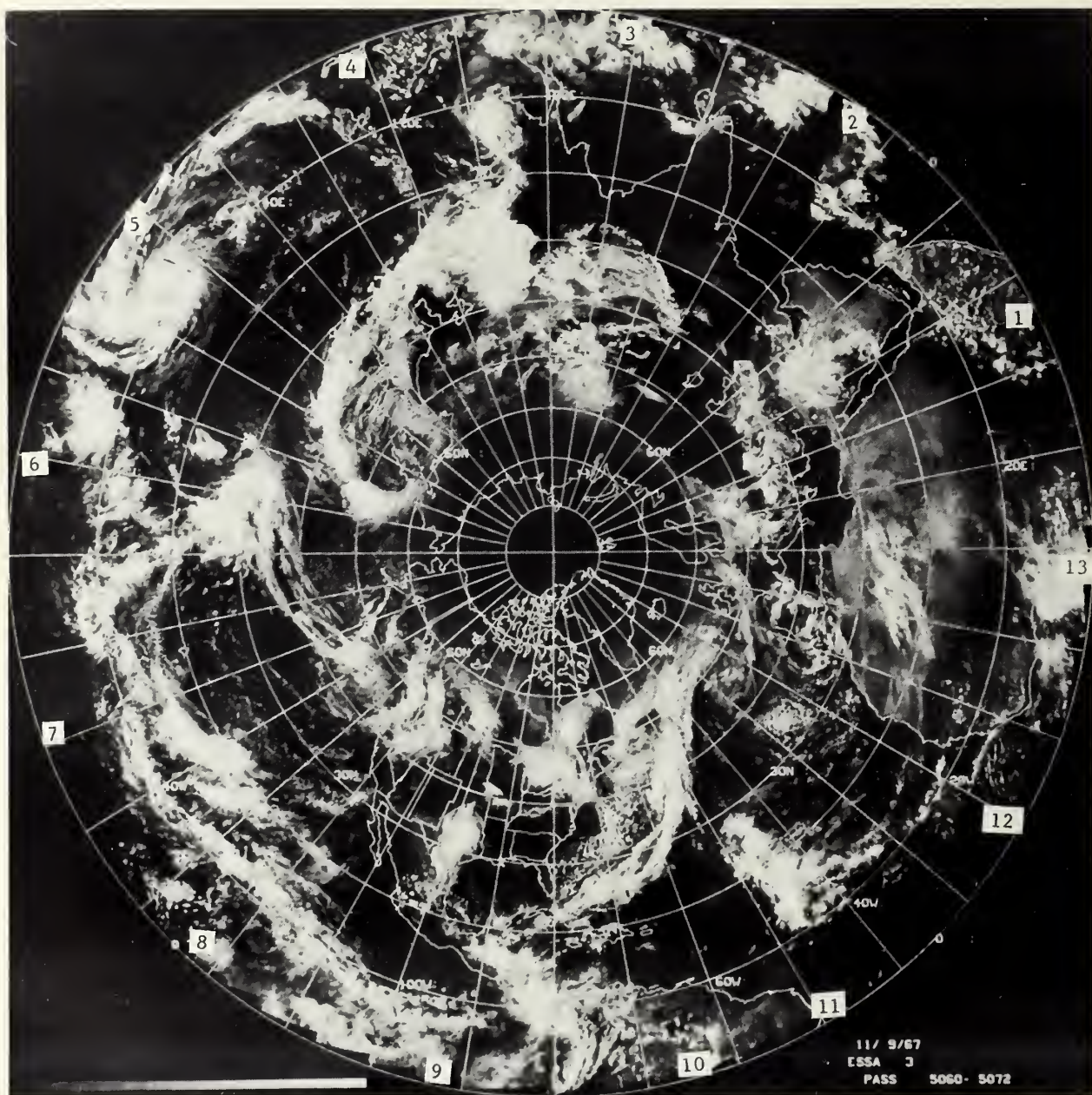


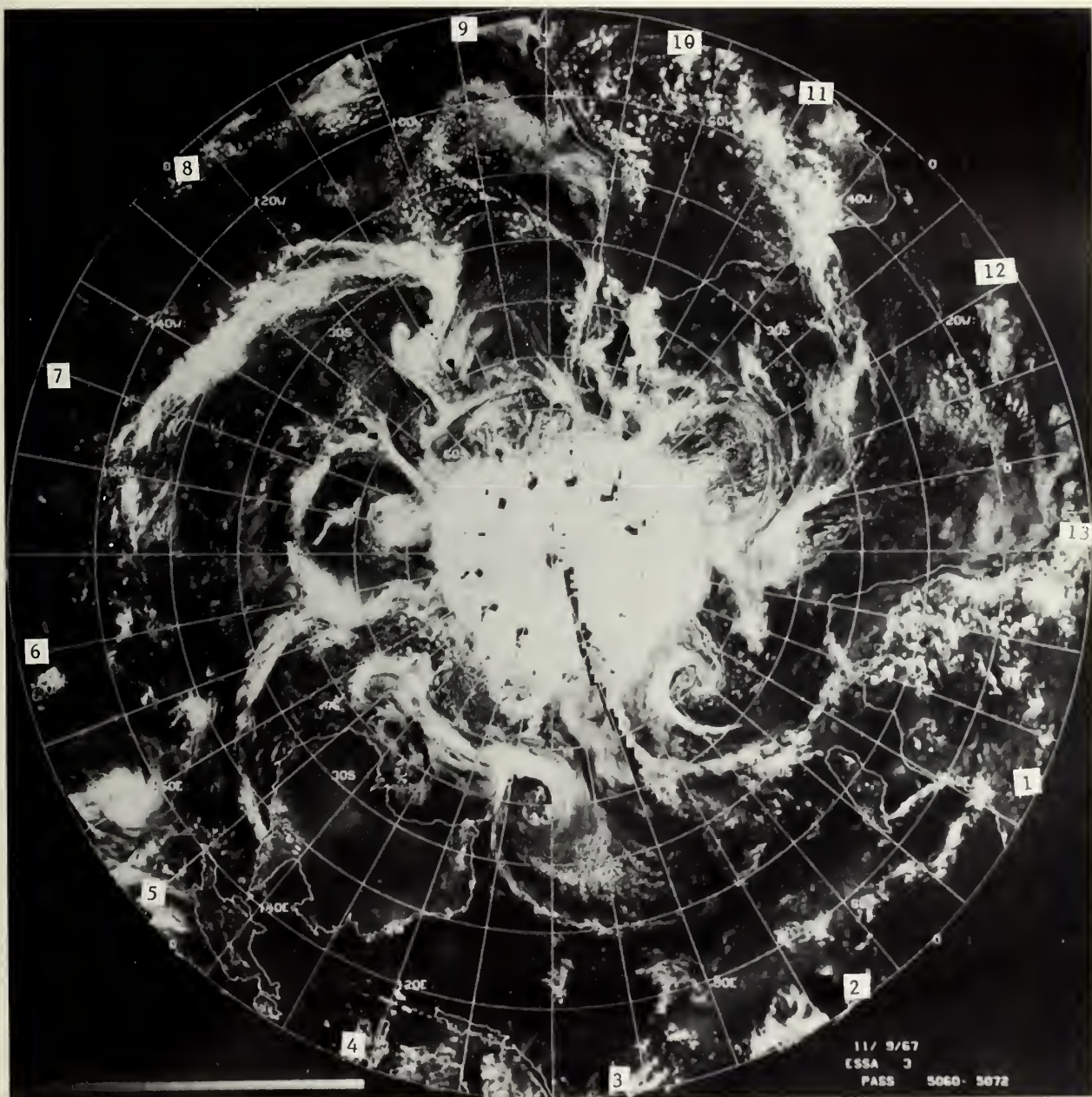




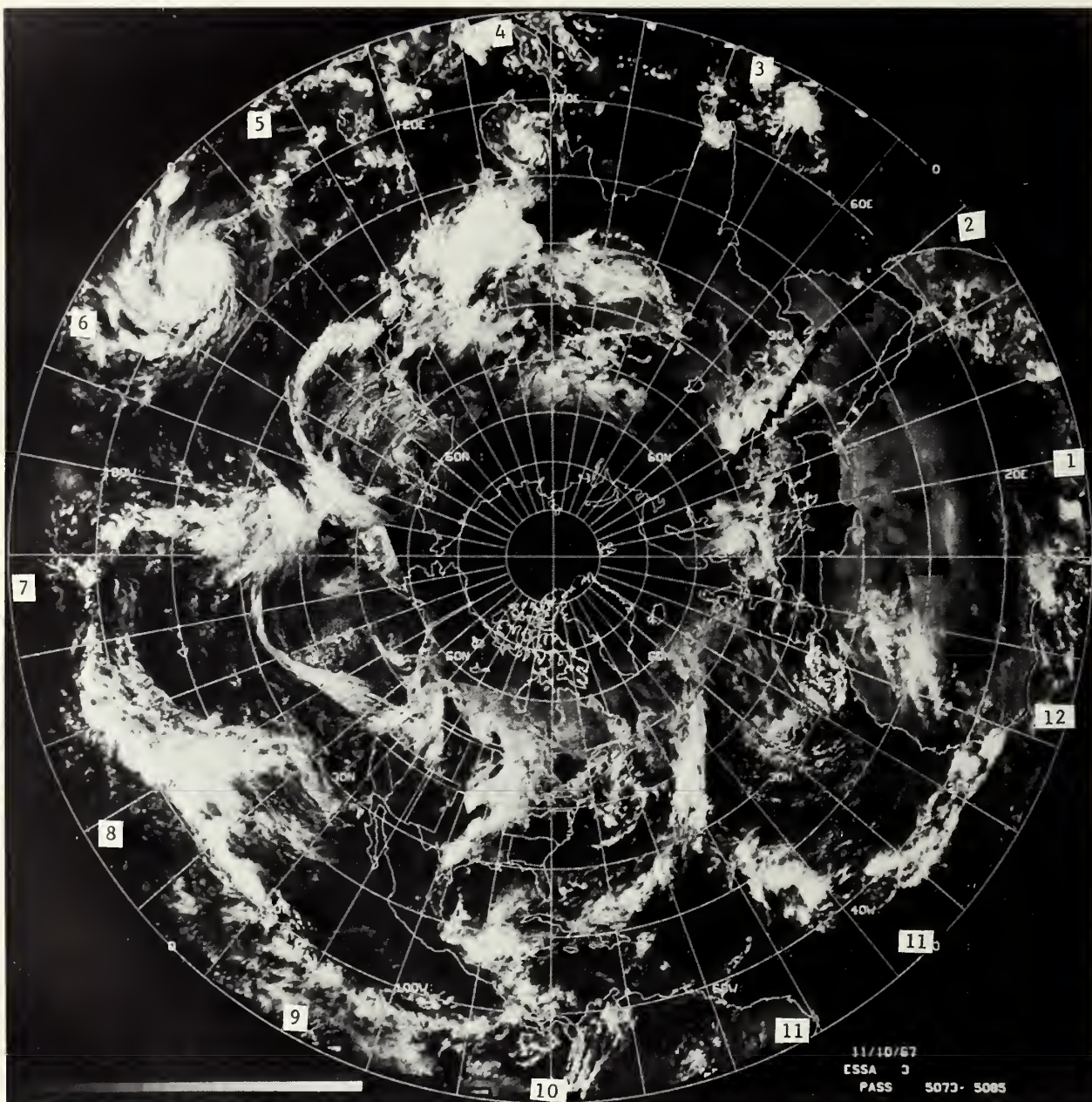


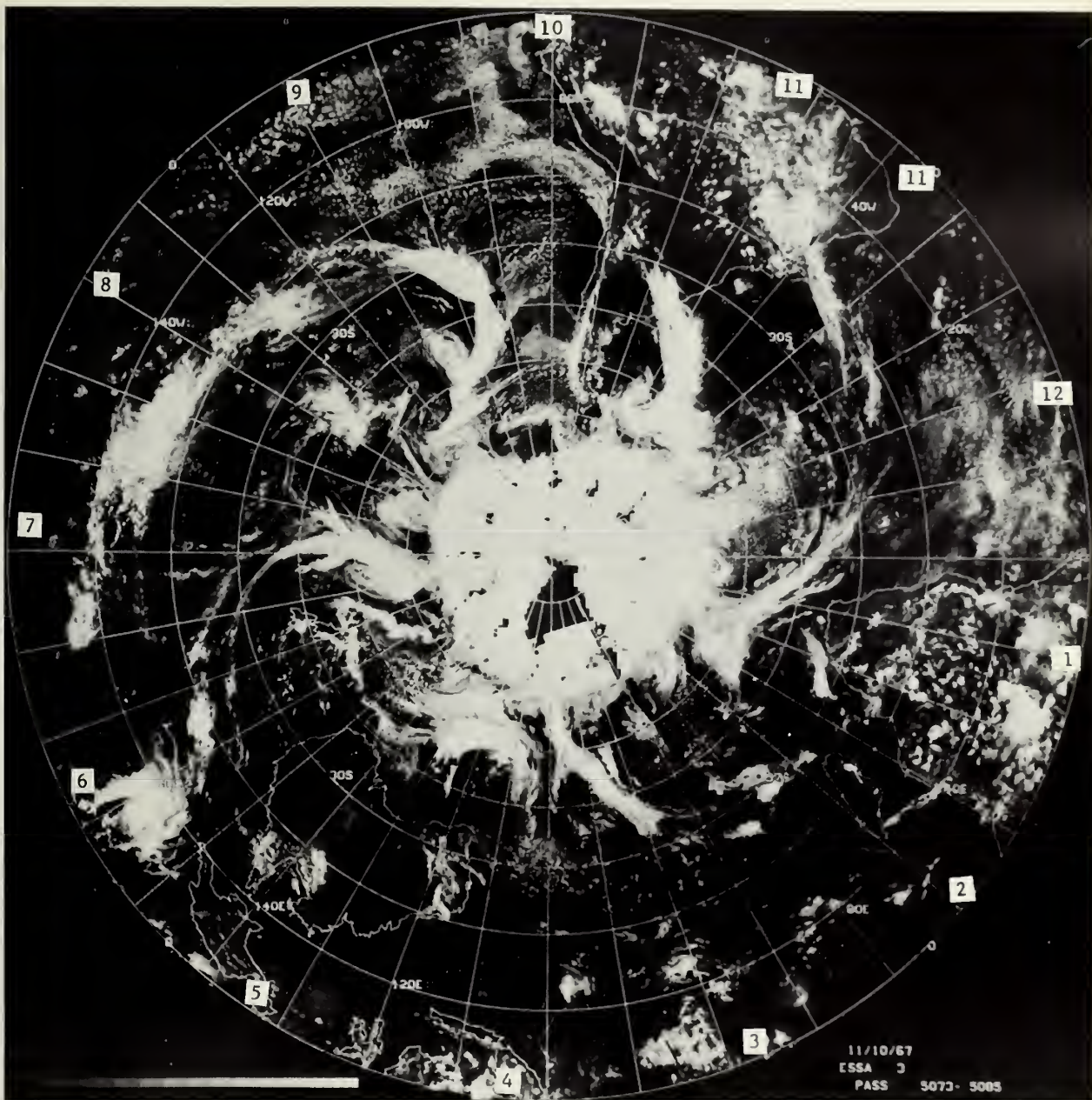




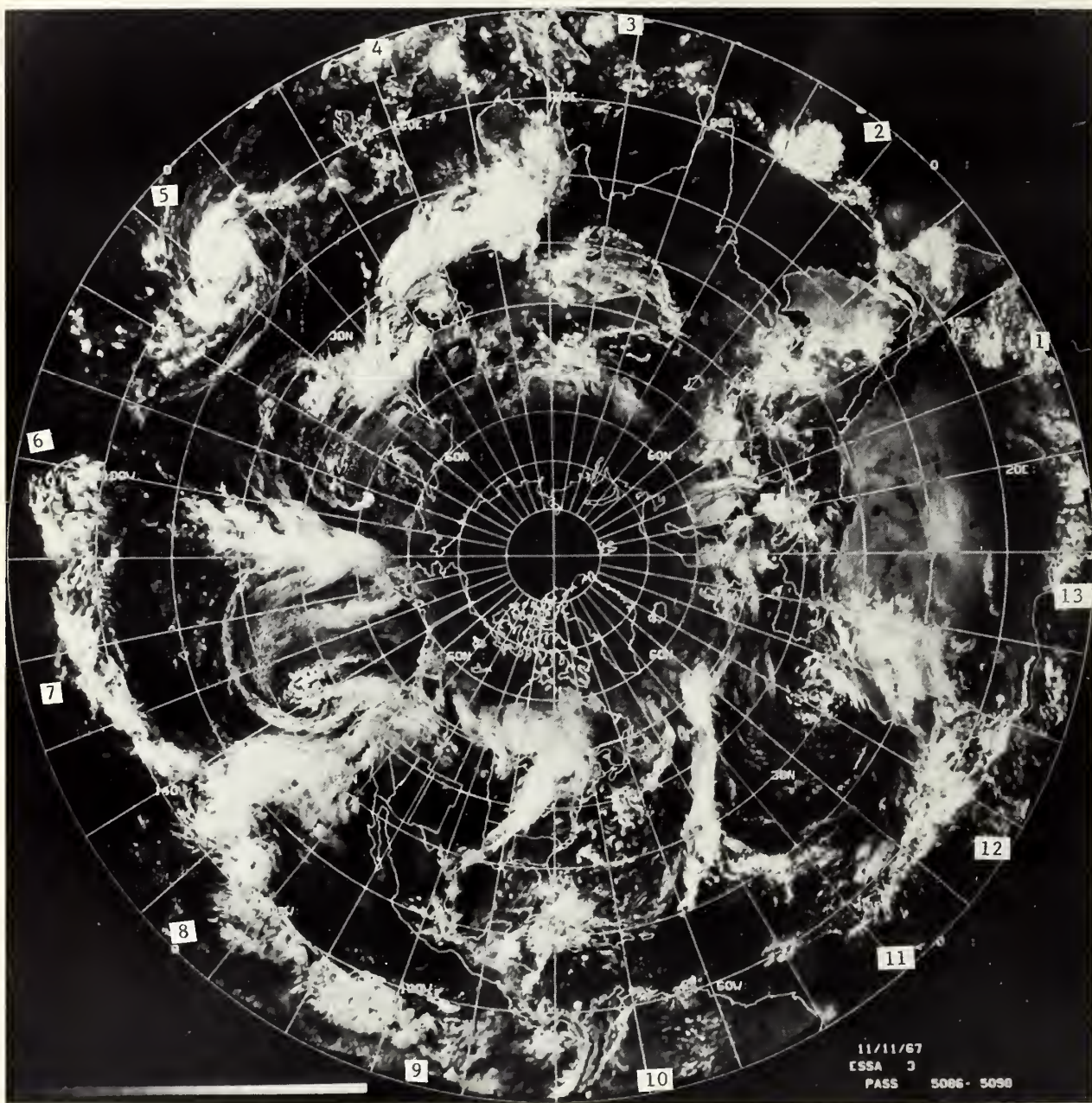




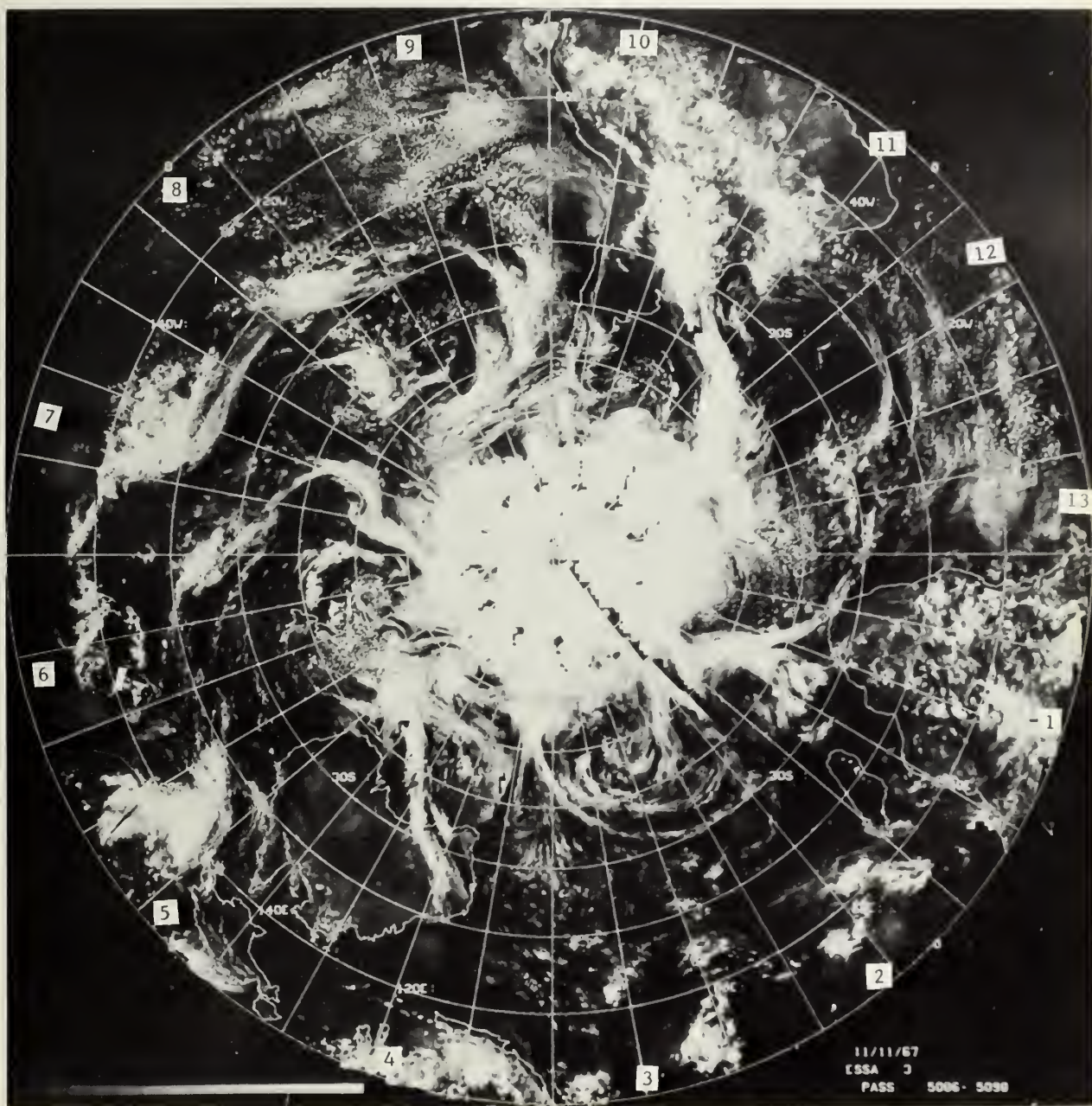




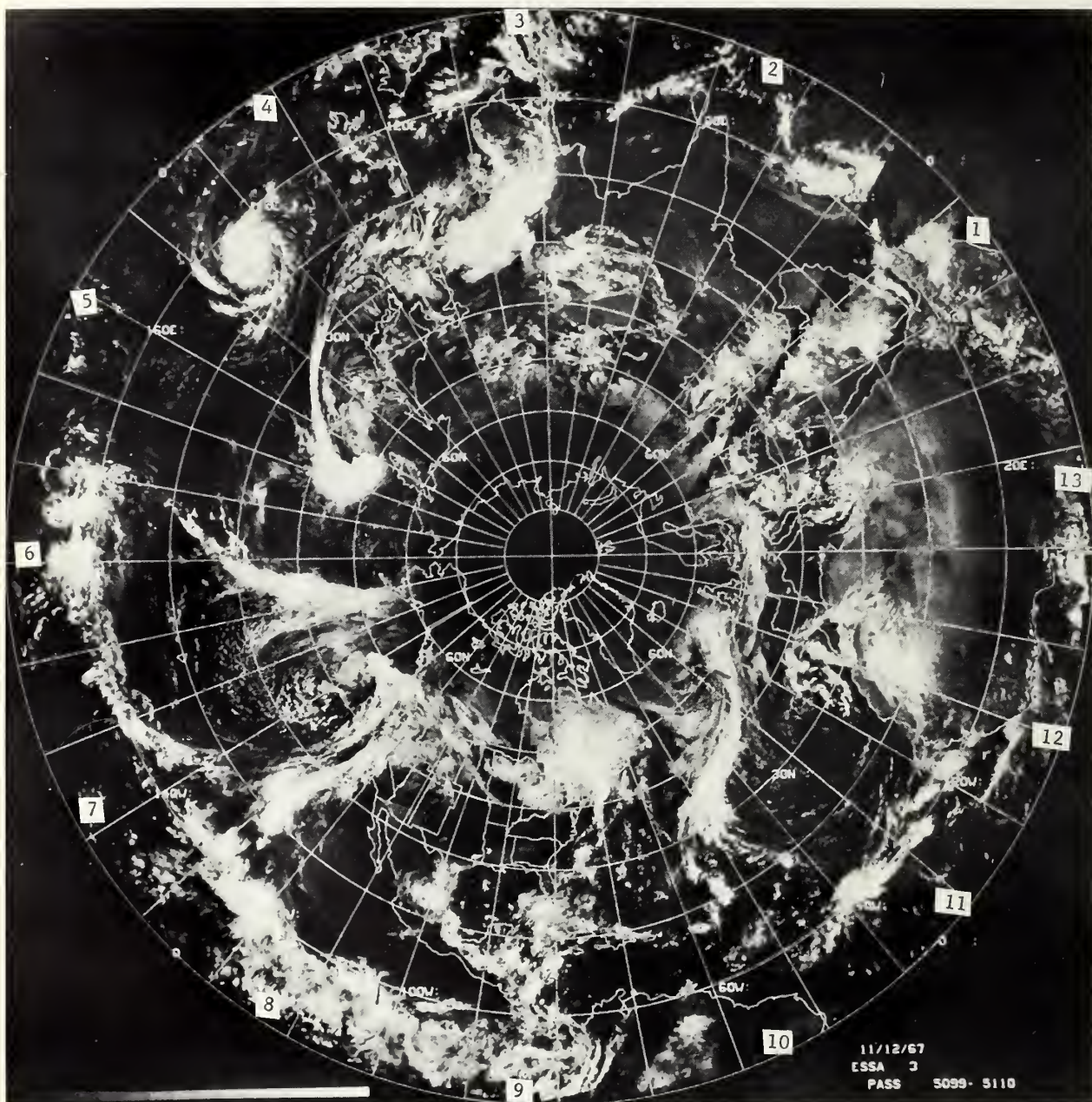




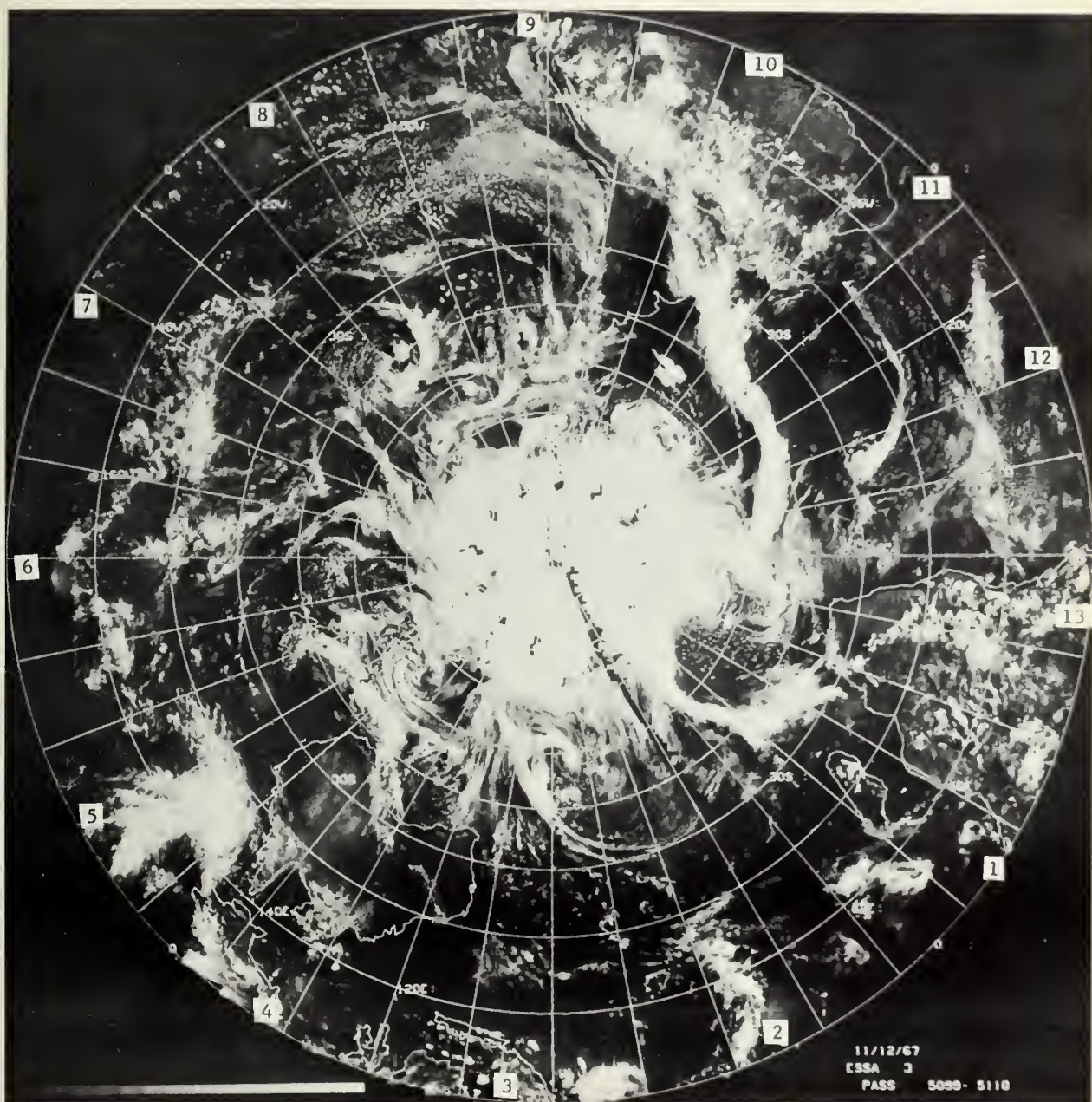




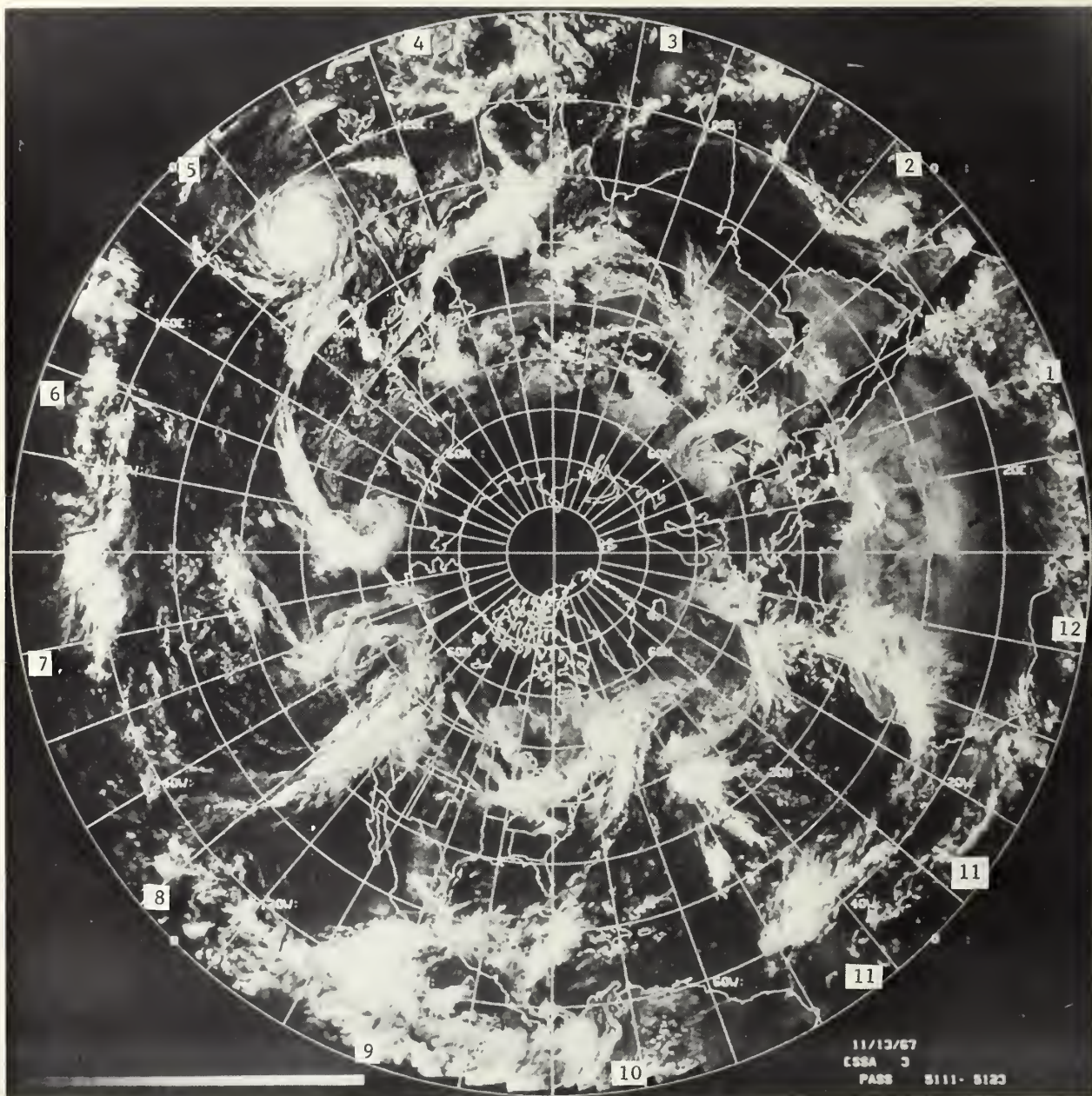




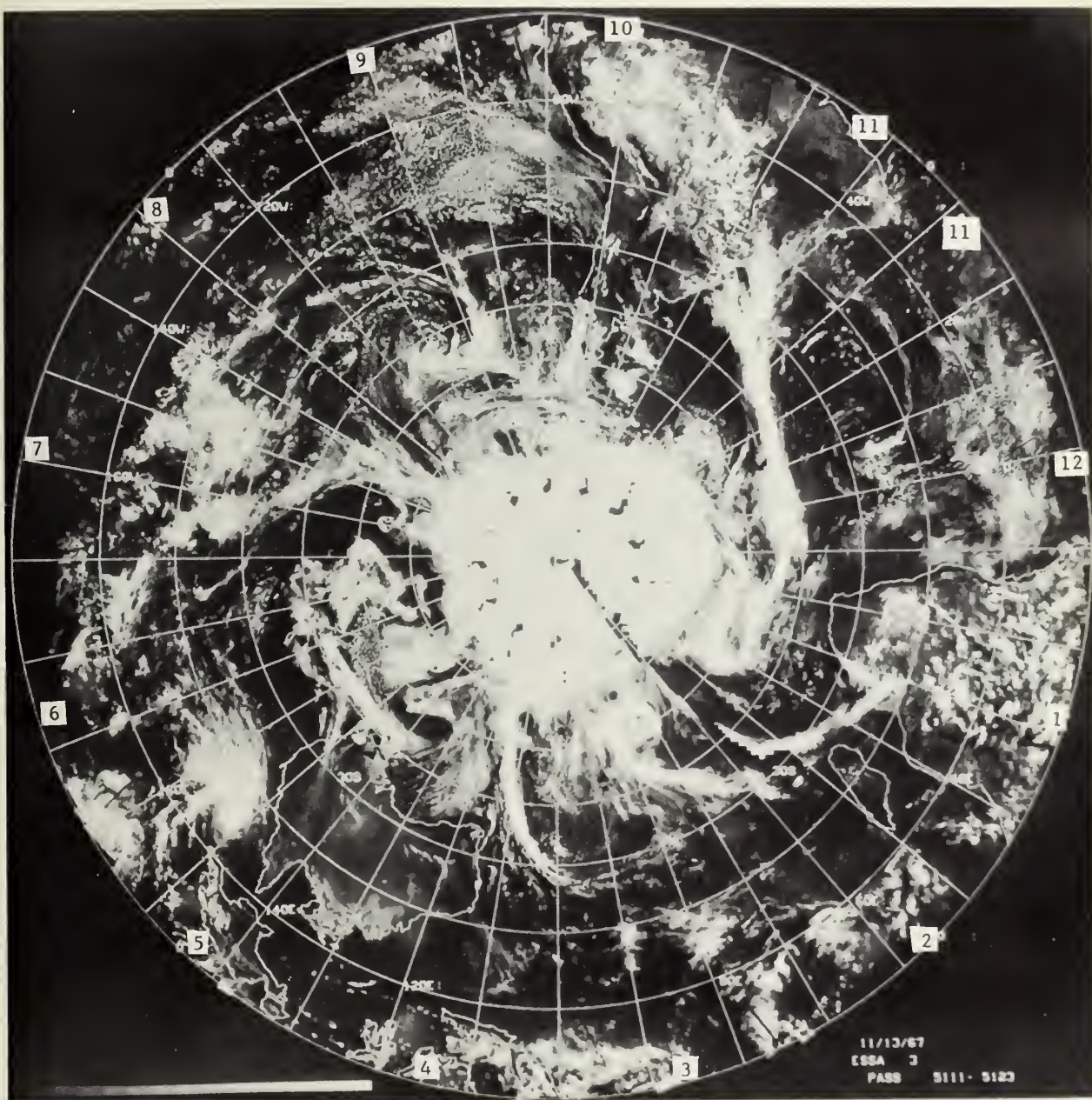




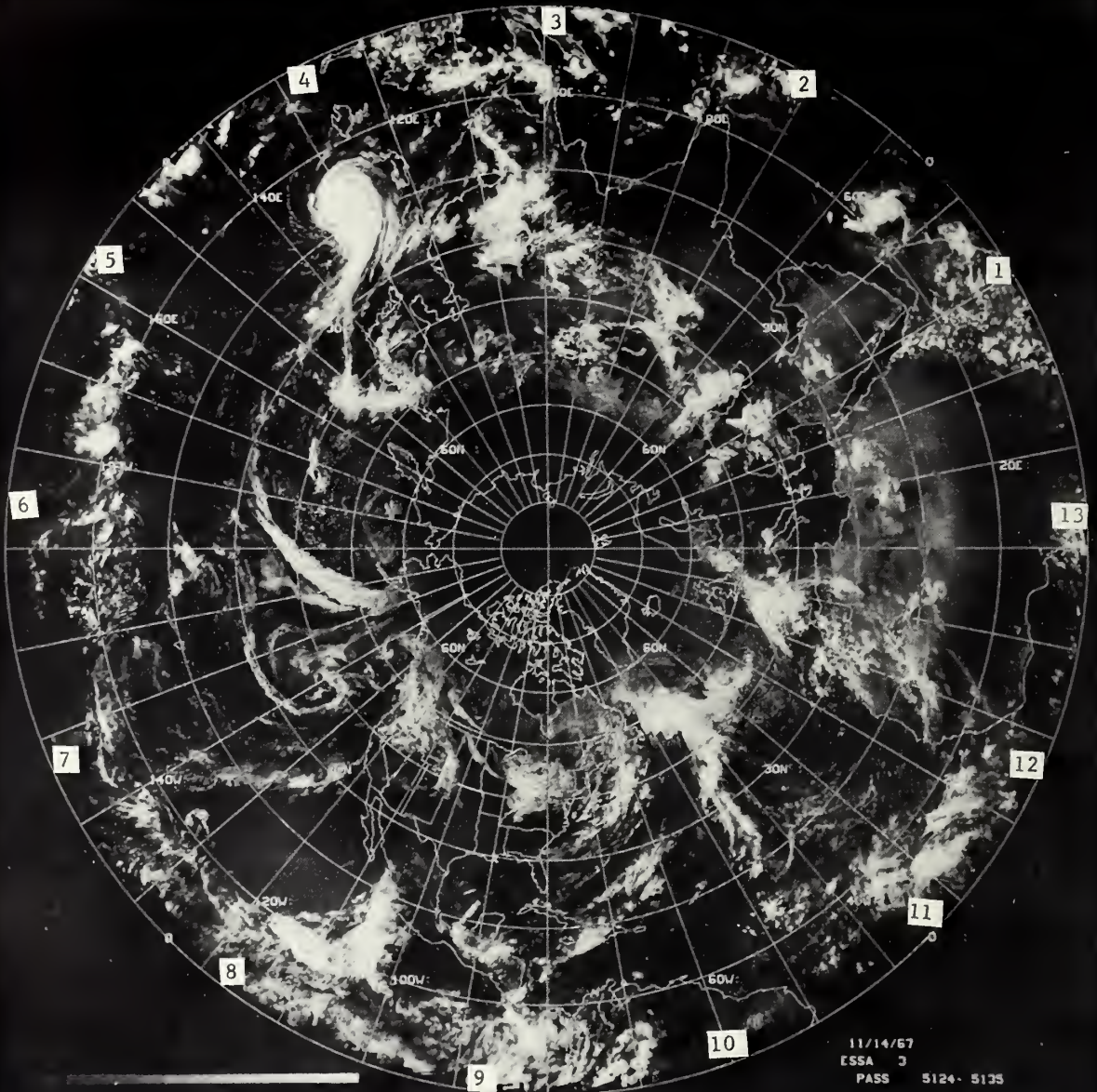


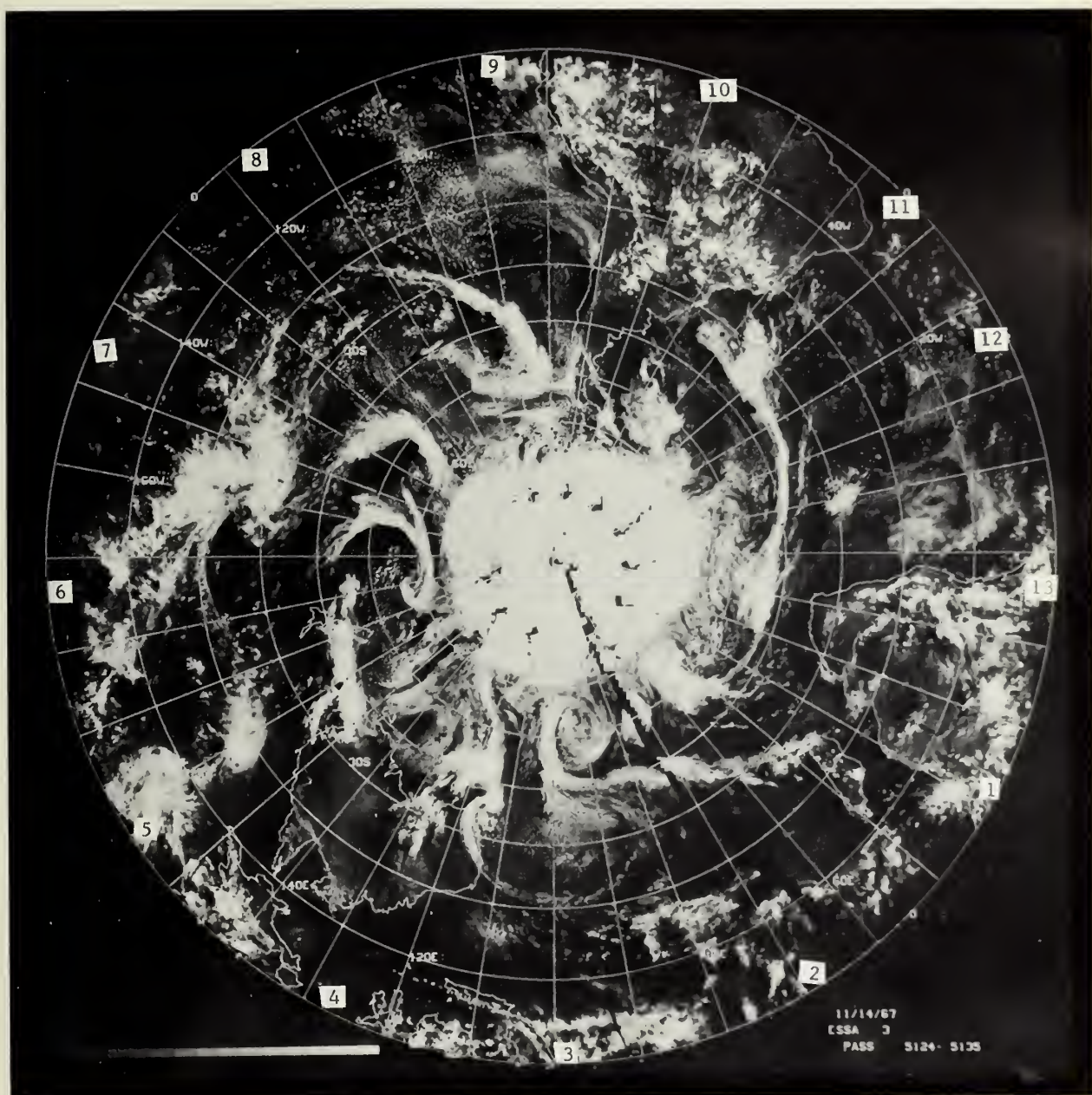




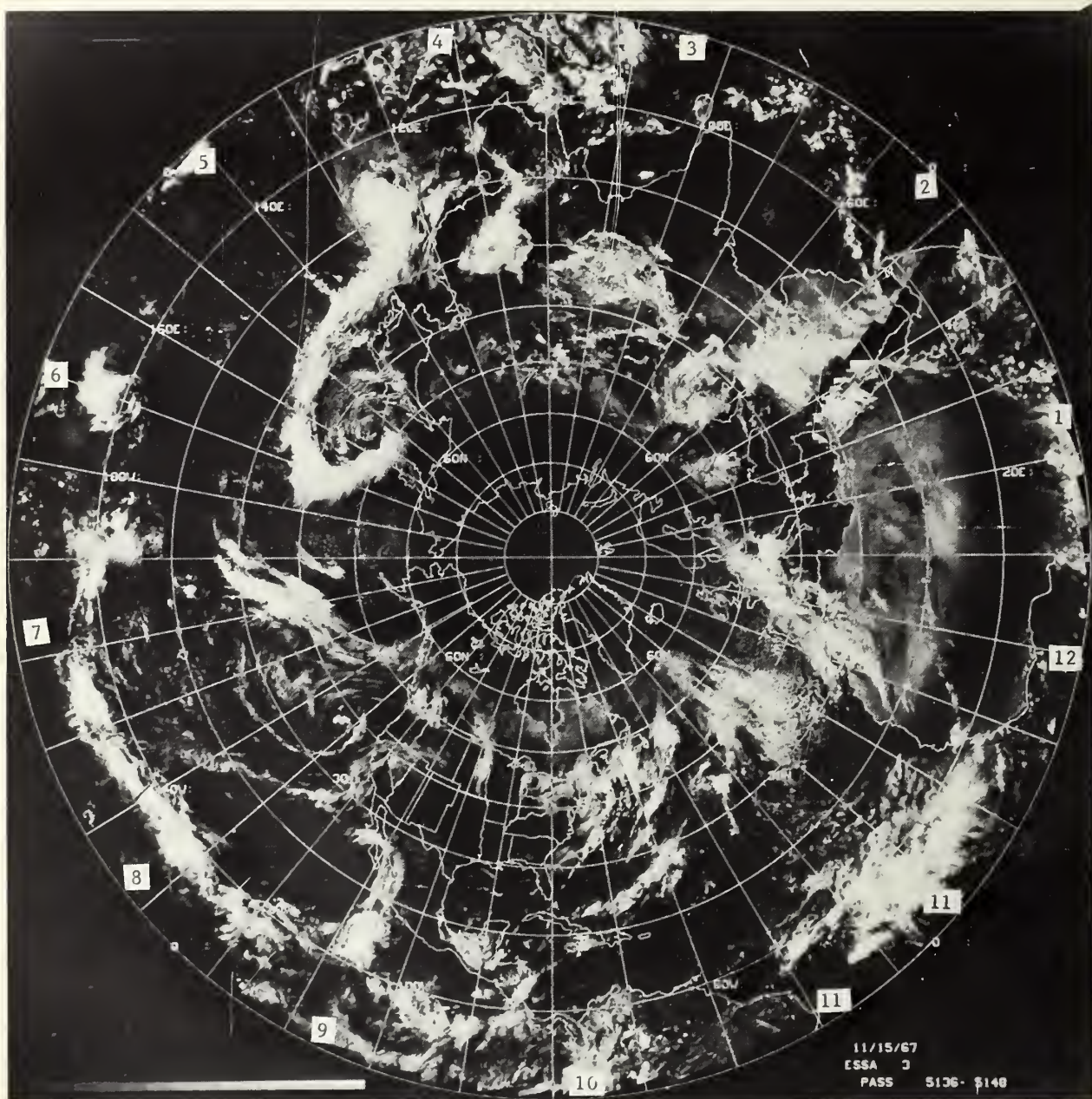


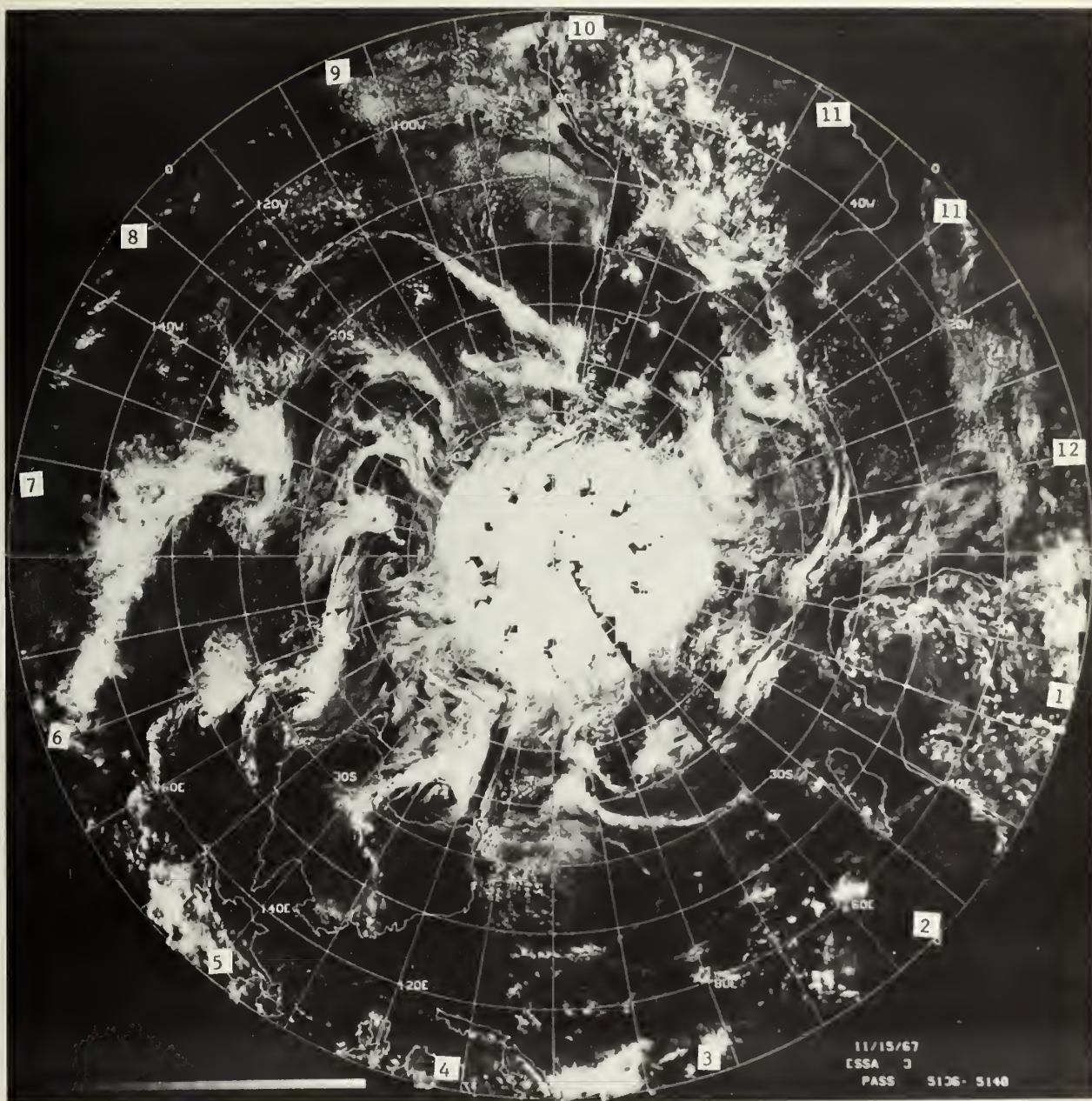




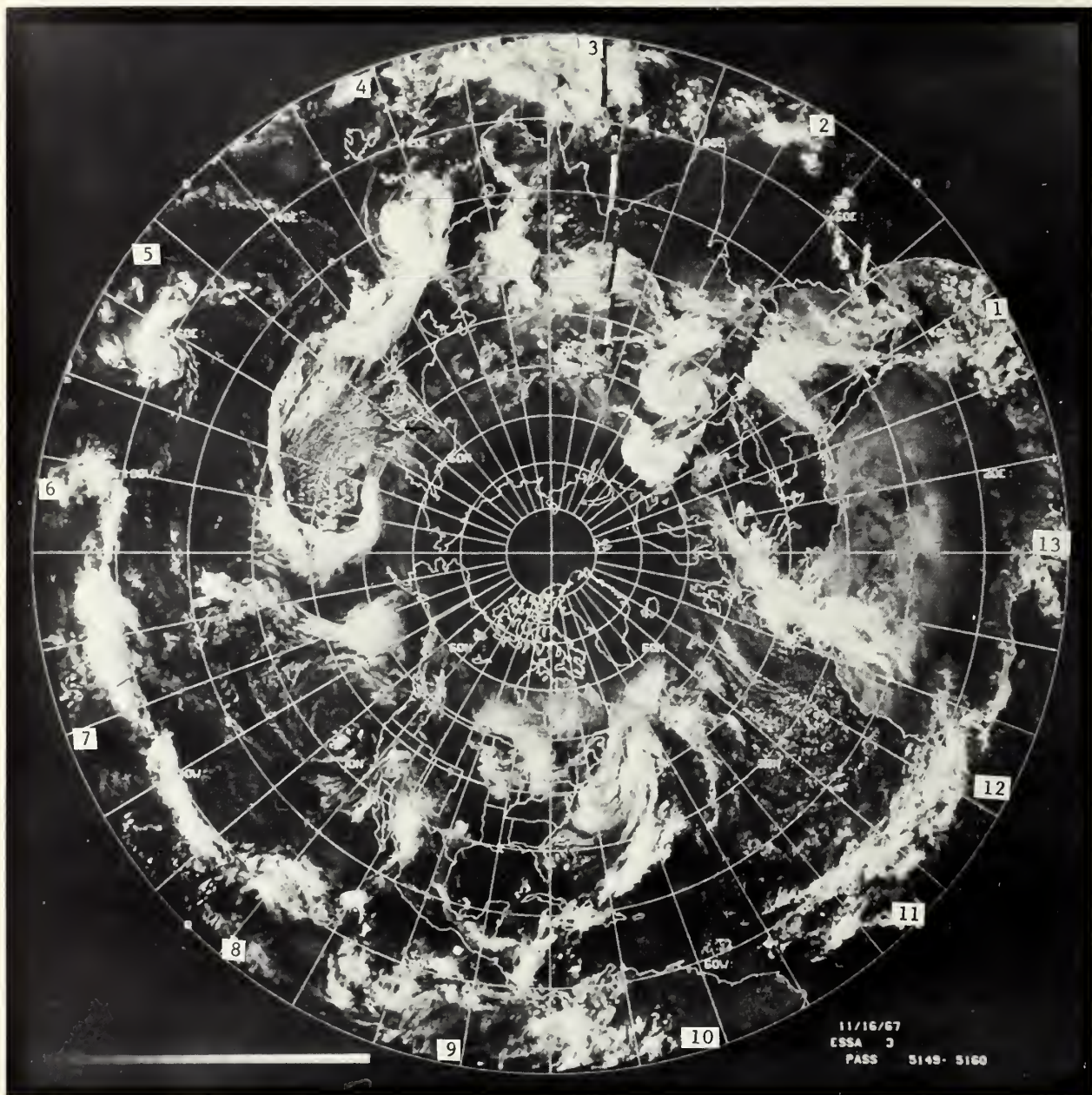


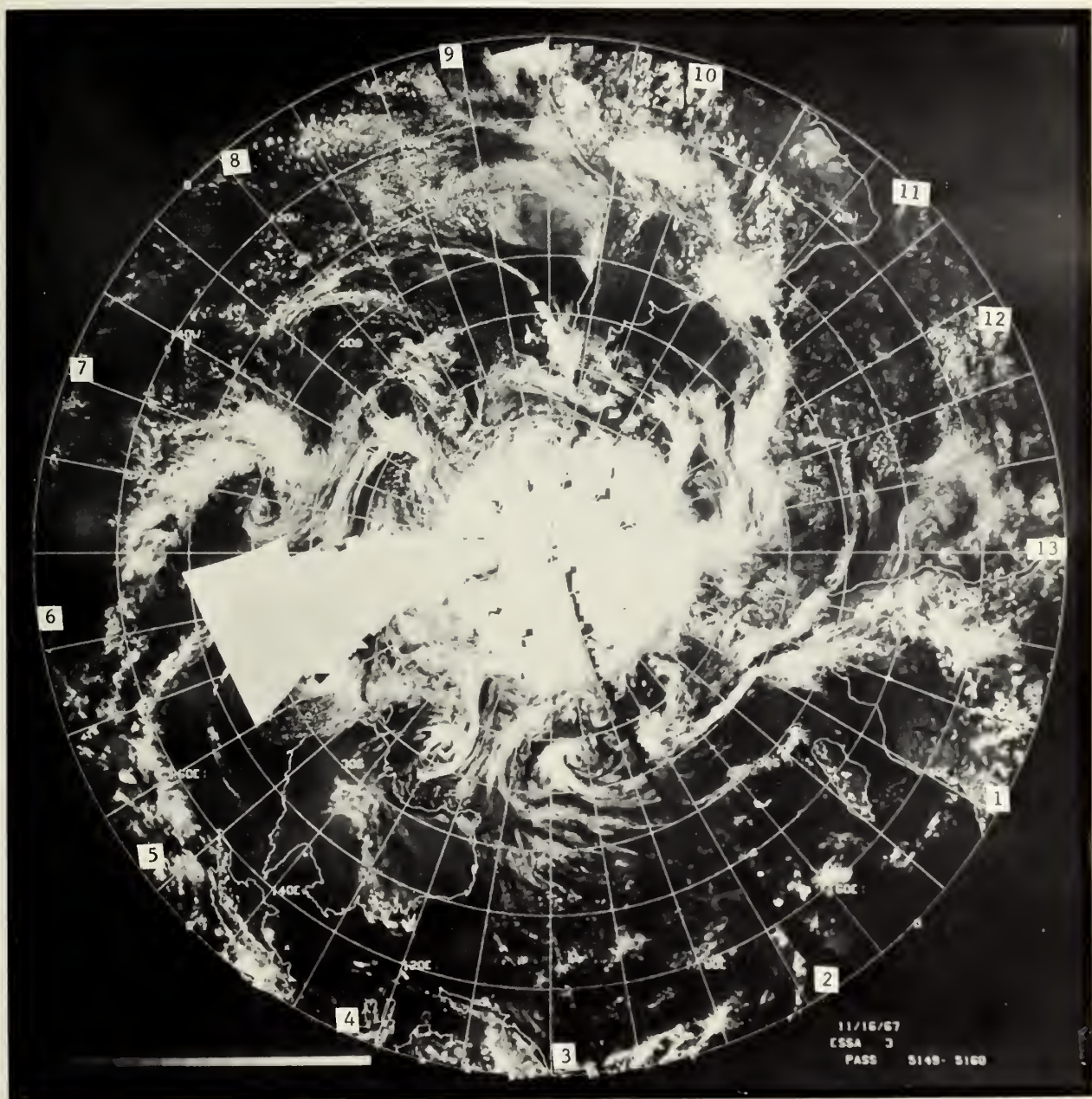












11/16/67  
ESSA 3  
PASS 5149-5160



NORTHERN HEMISPHERE

11/17/67

ESSA 3

No digitized product

SOUTHERN HEMISPHERE

11/17/67

ESSA 3

No digitized product



NORTHERN HEMISPHERE

11/18/67

ESSA 3

No digitized product

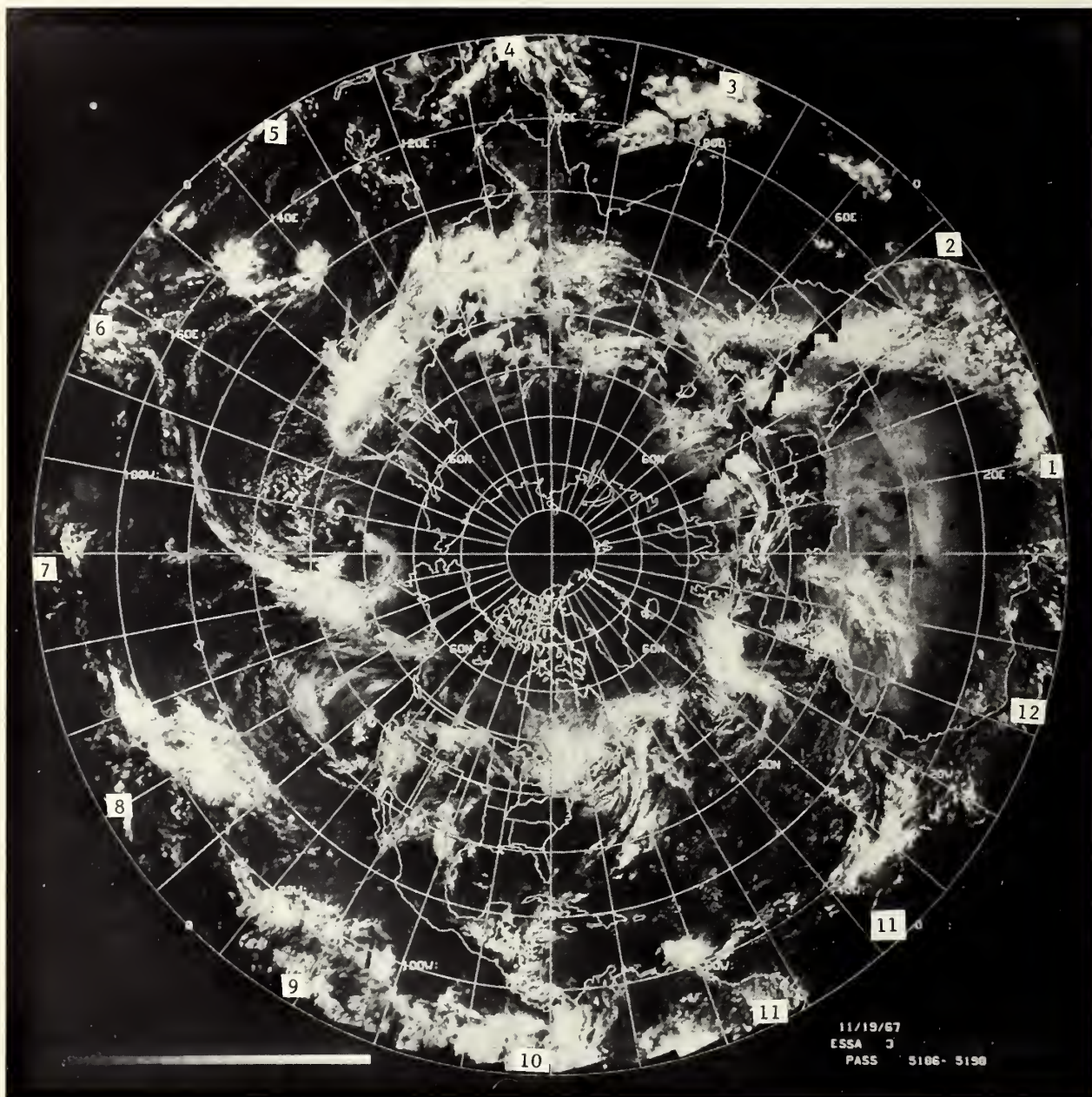
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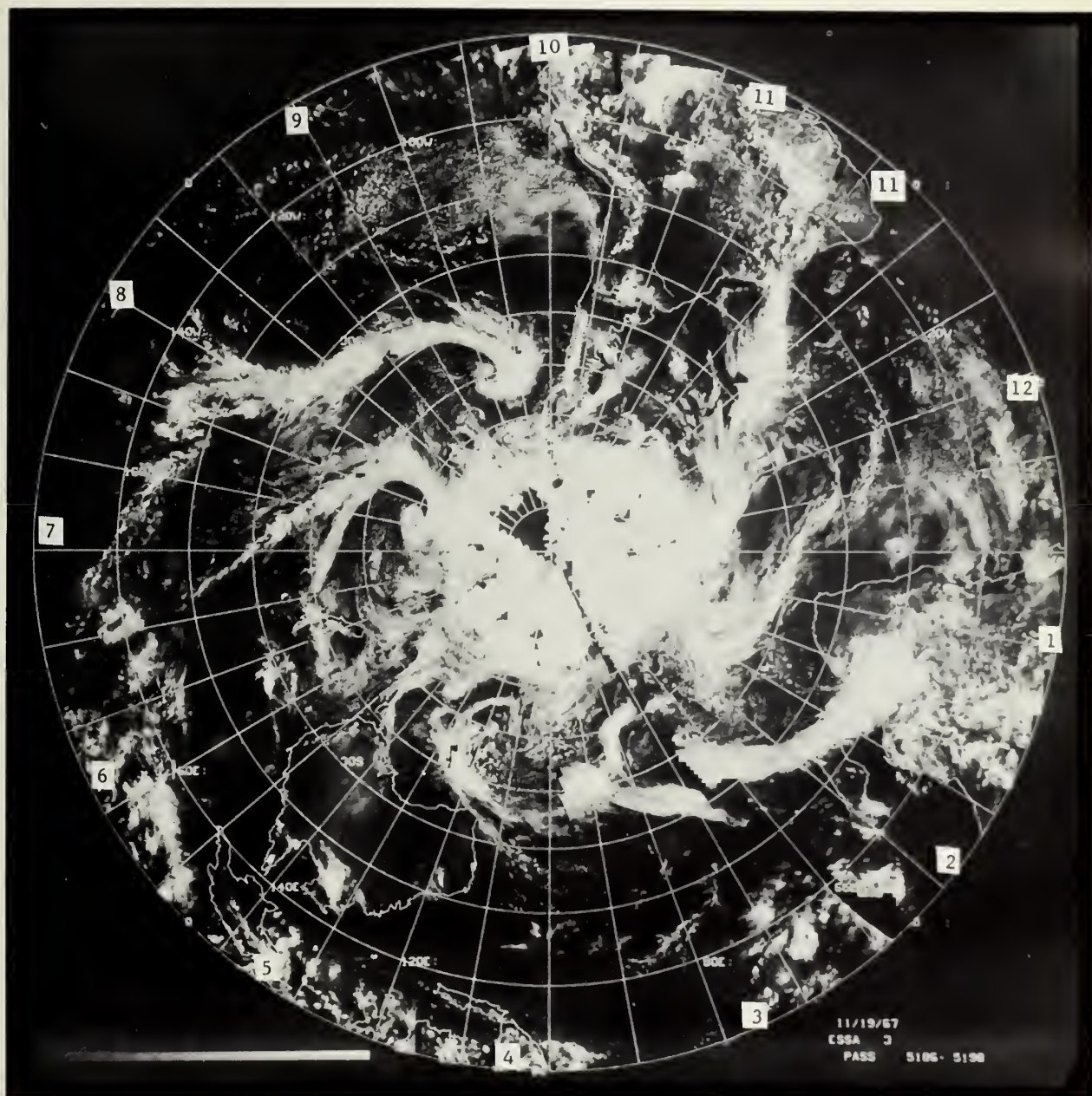
11/18/67

ESSA 3

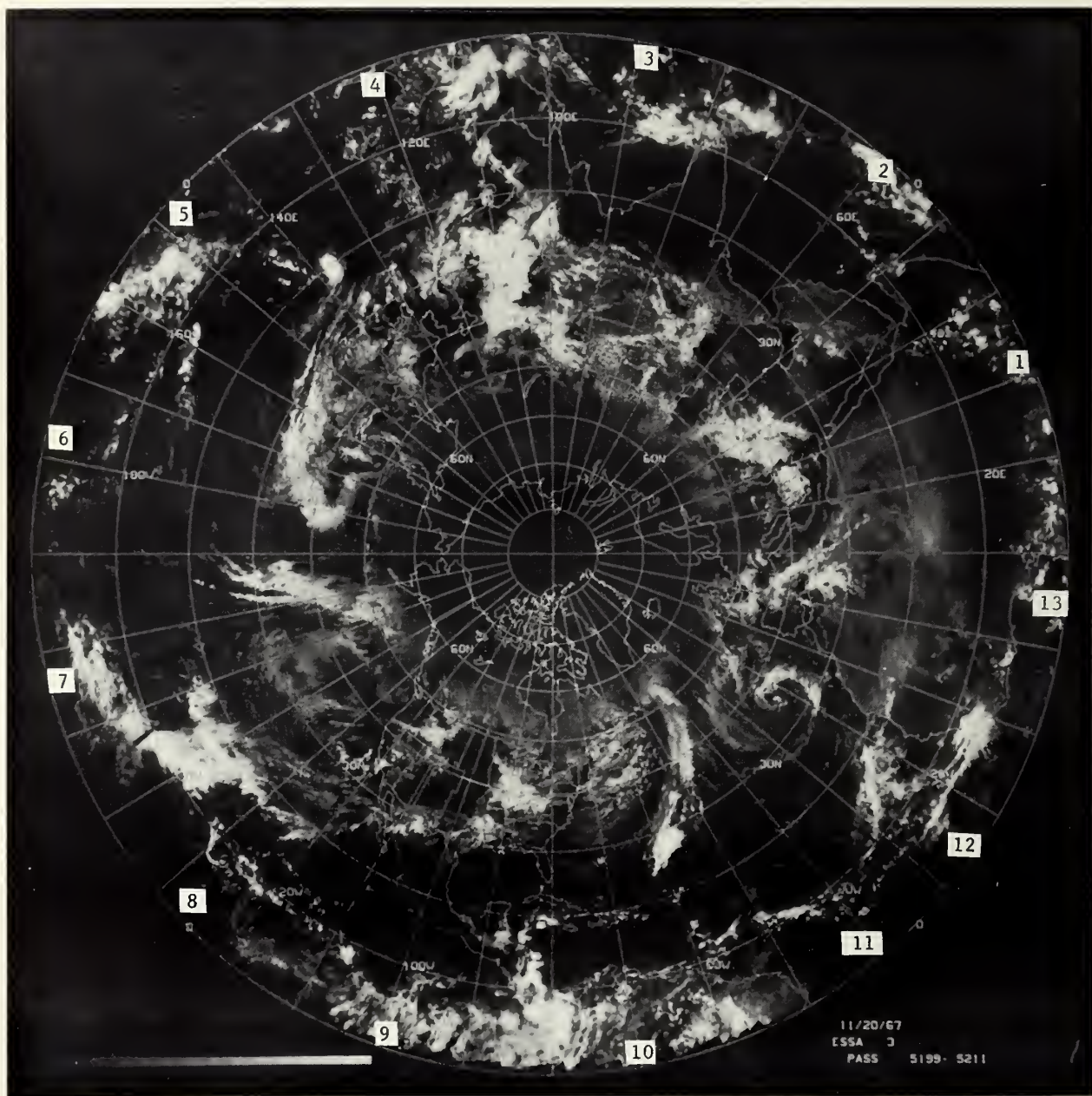
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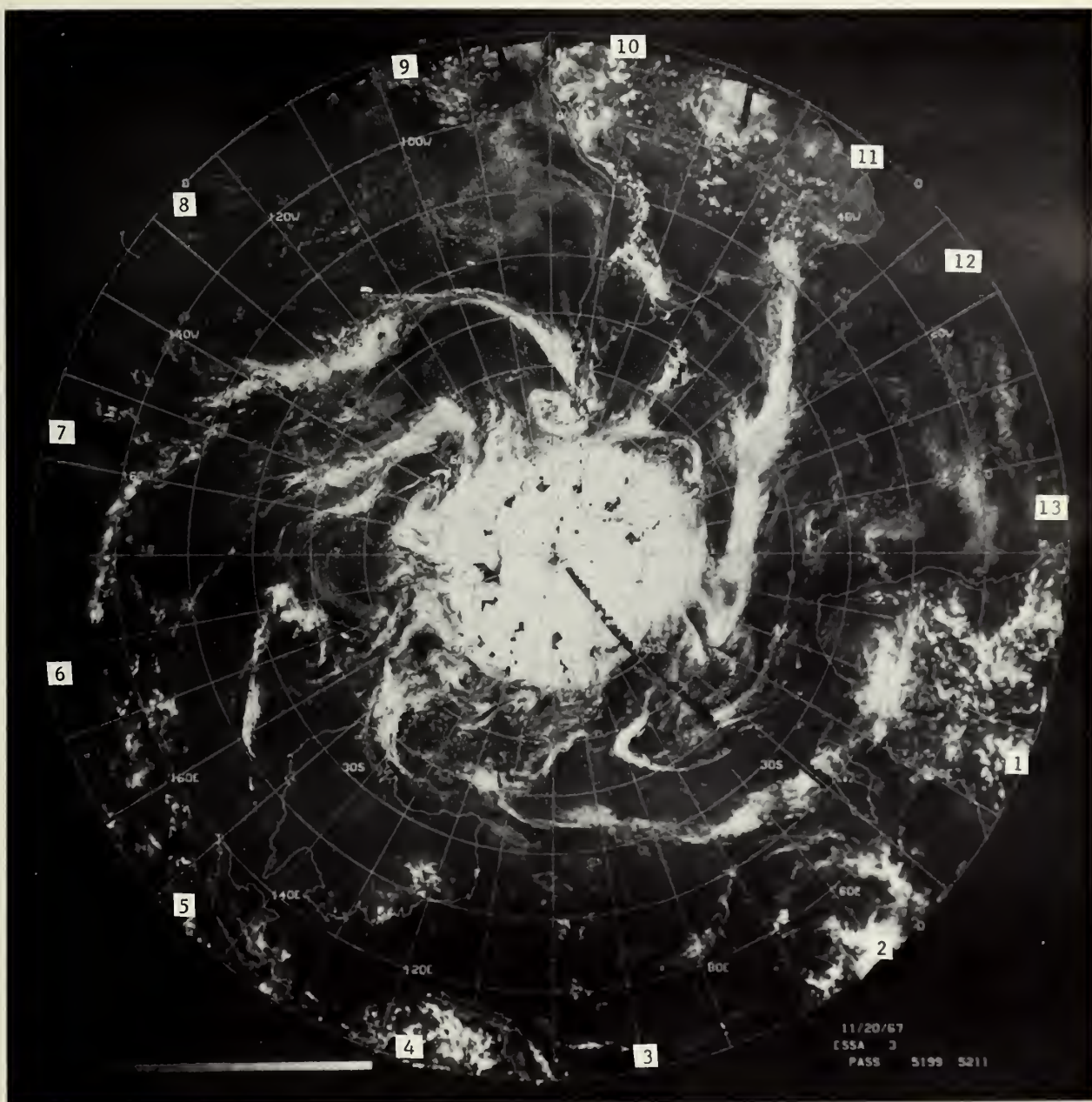




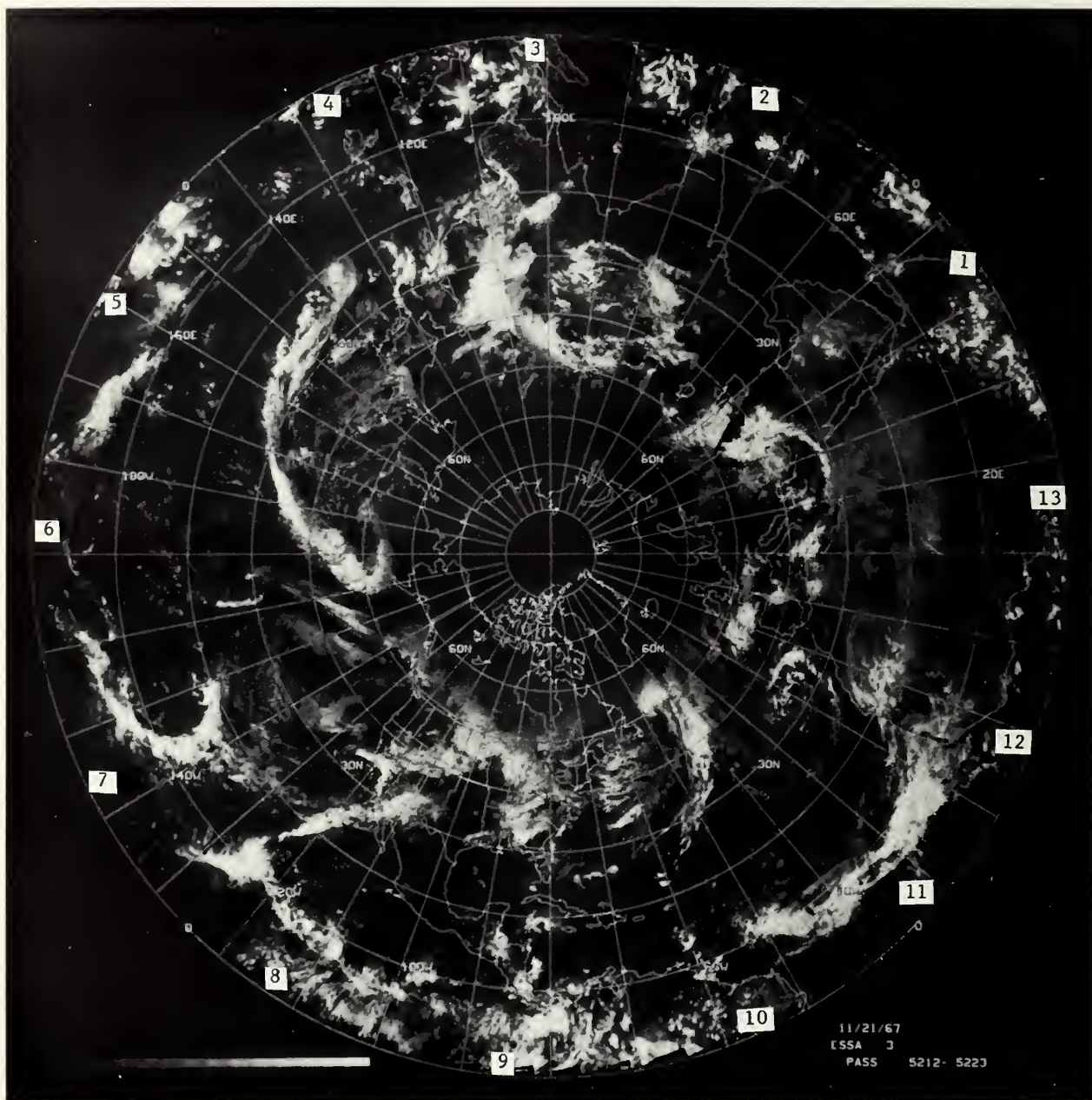


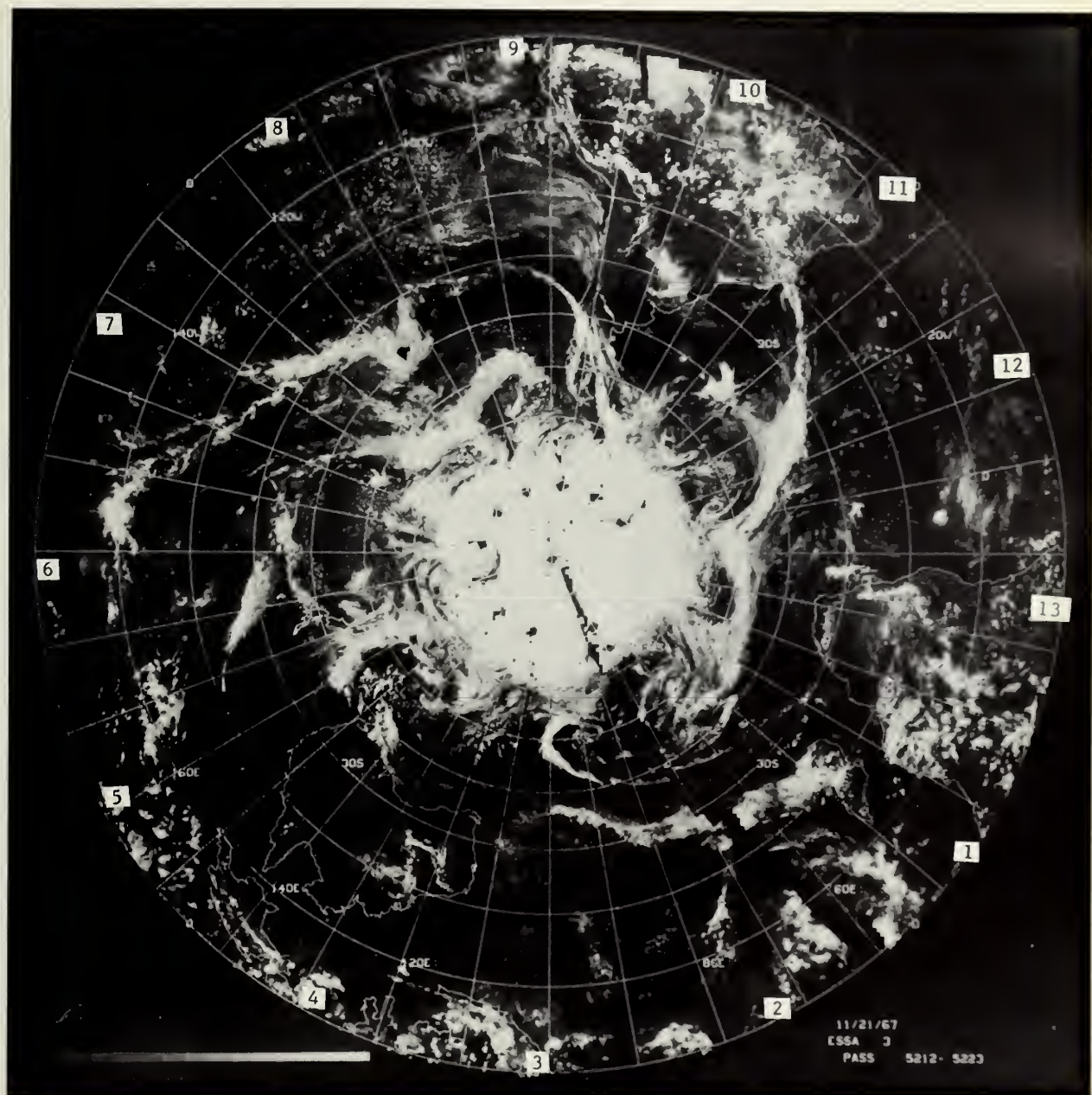




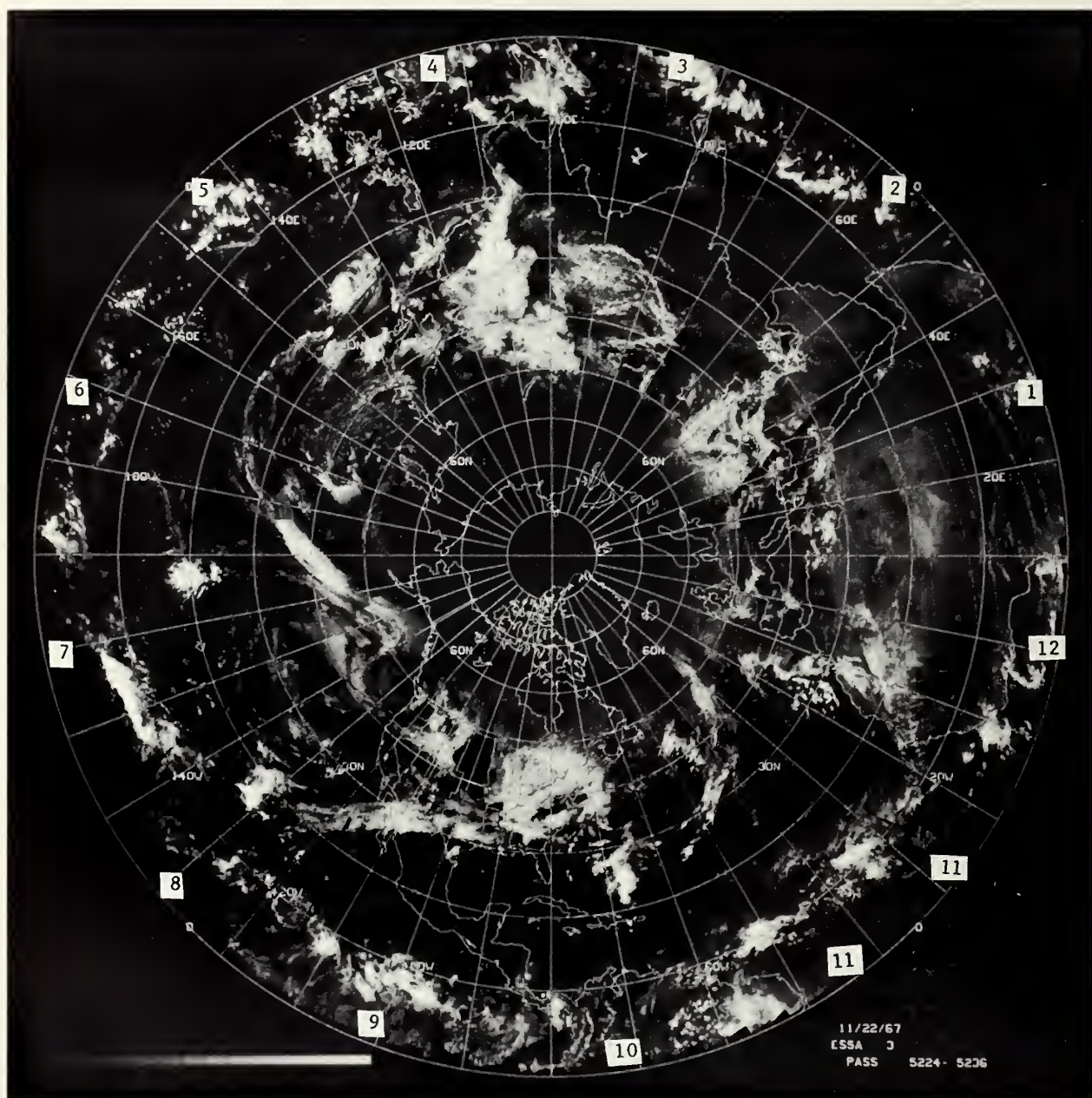


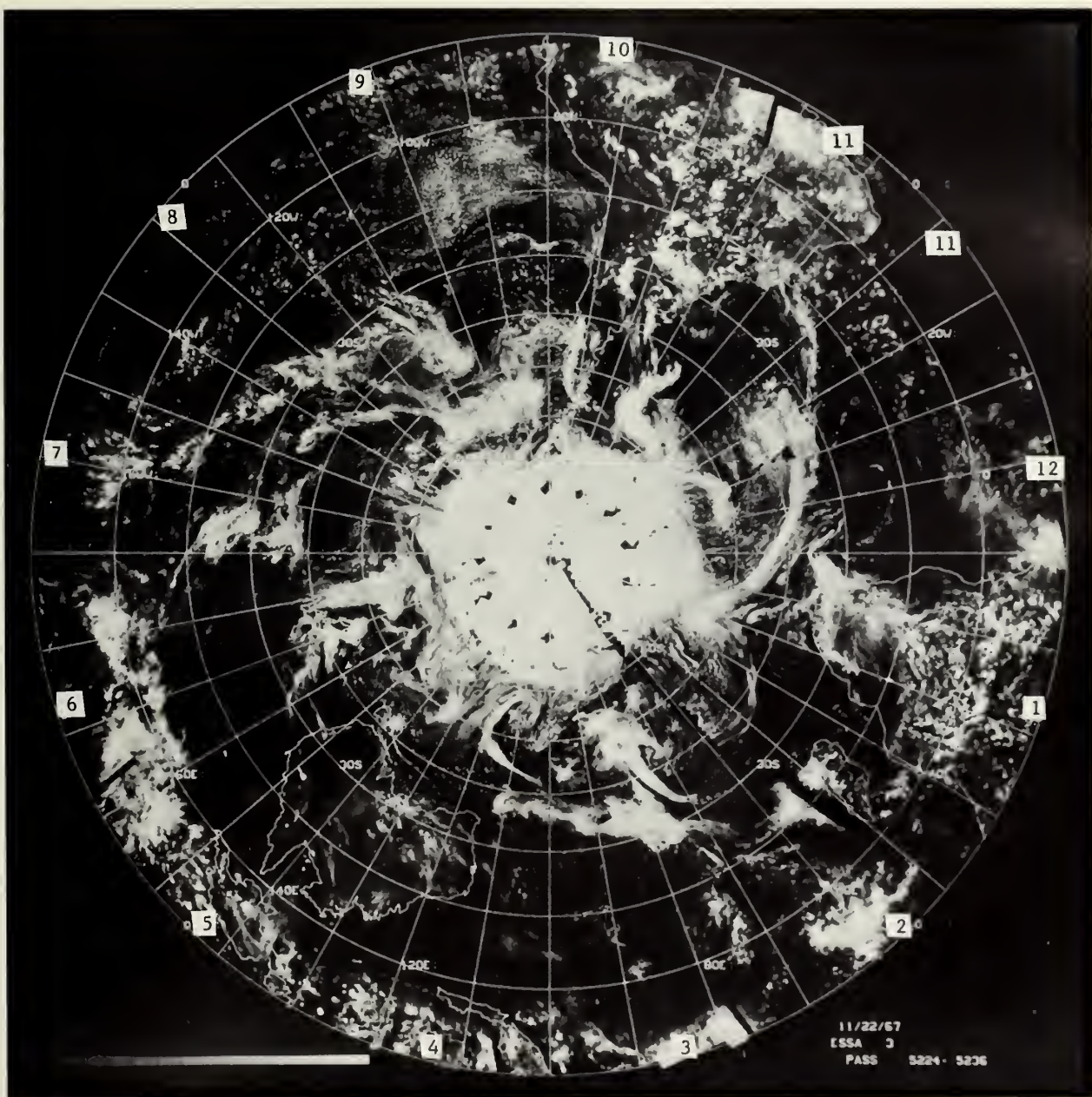




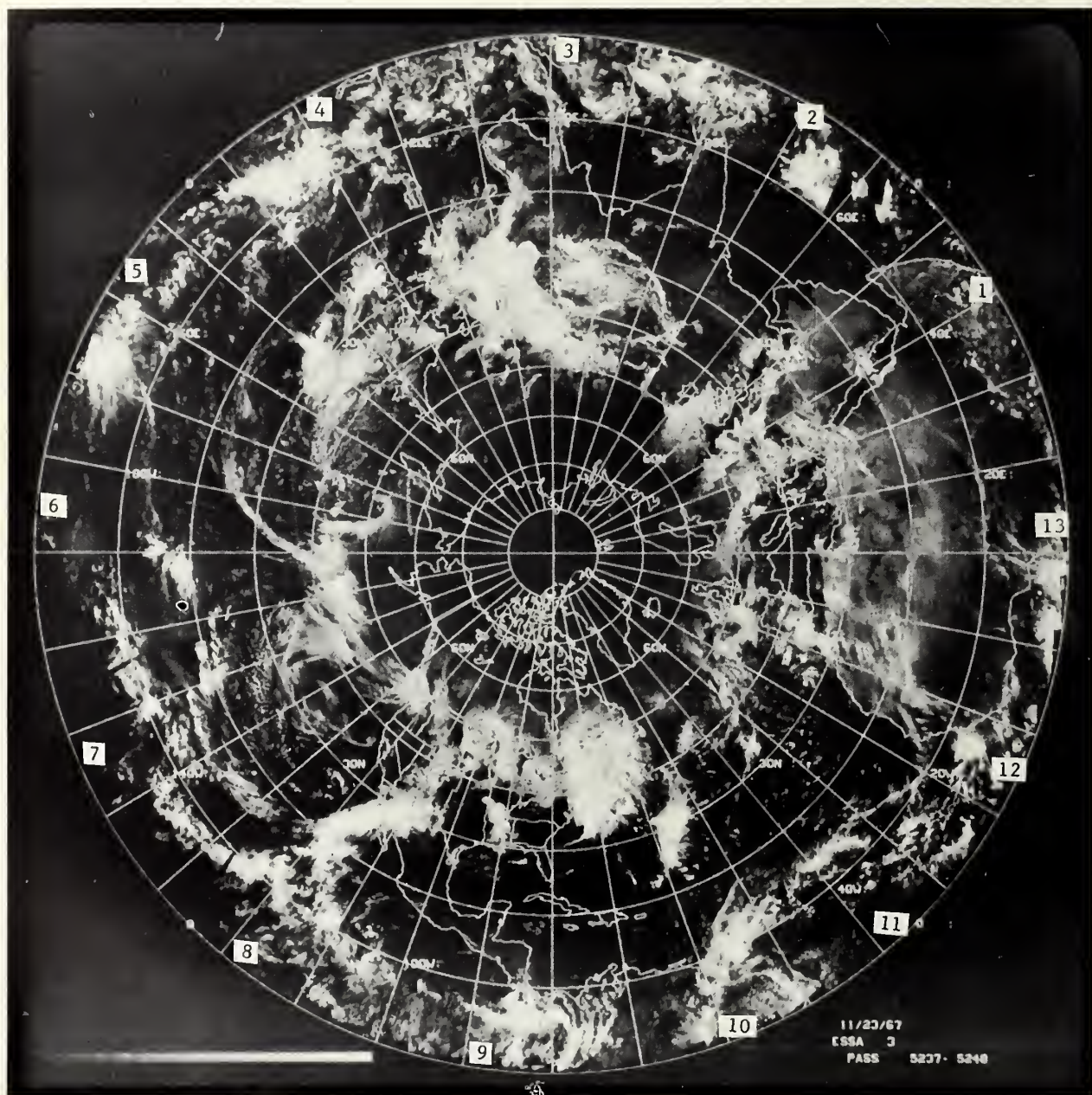


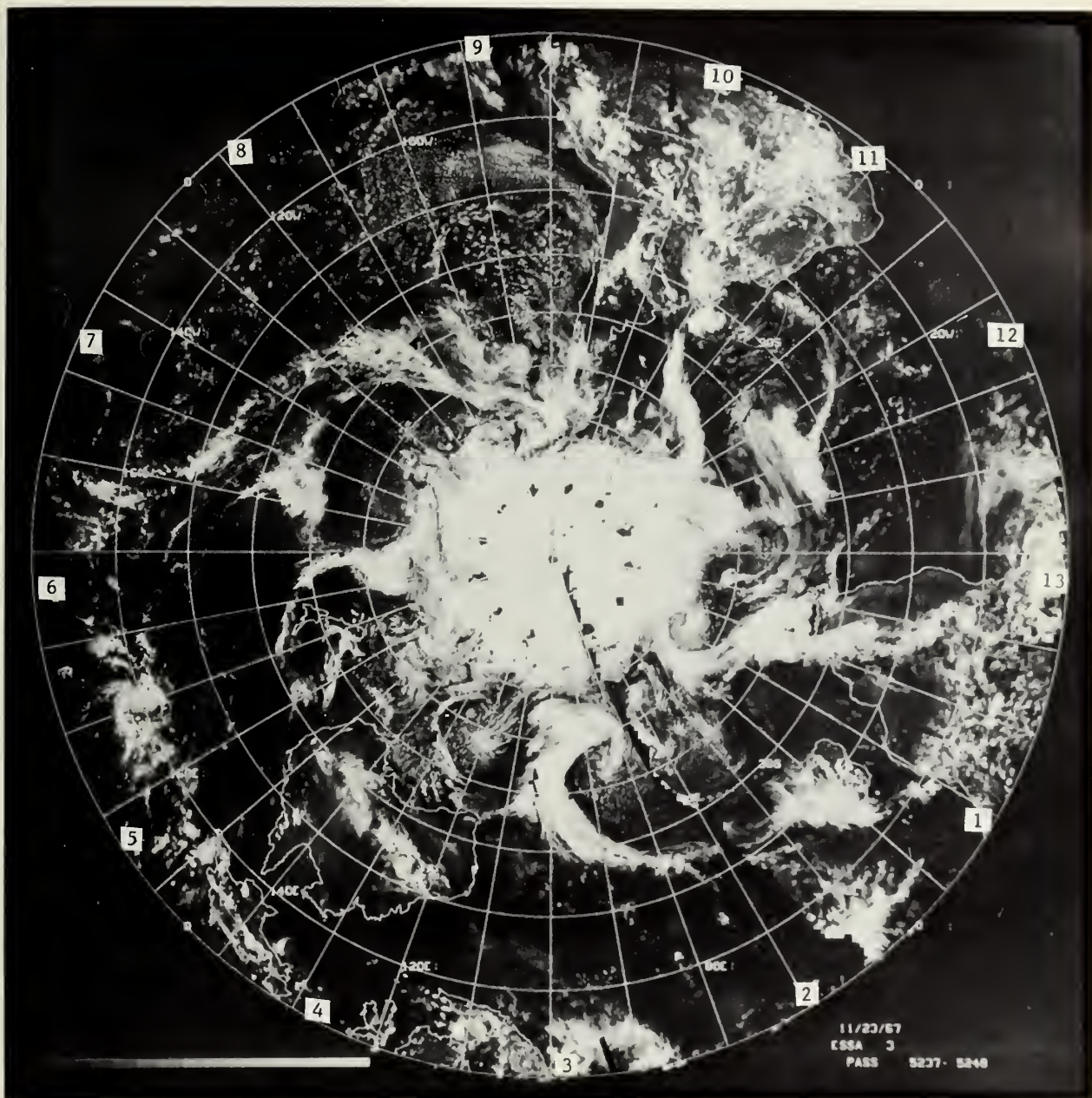




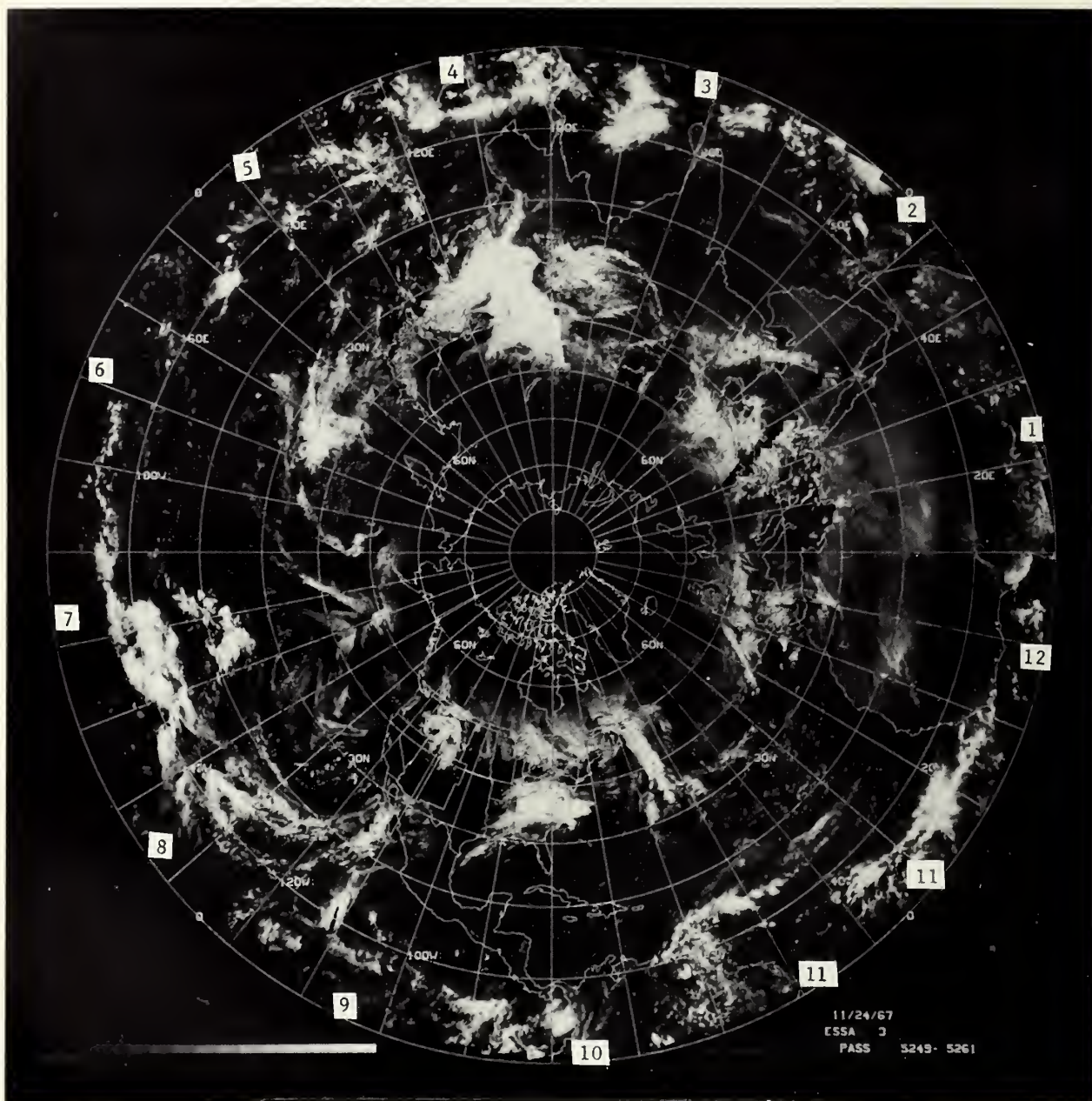


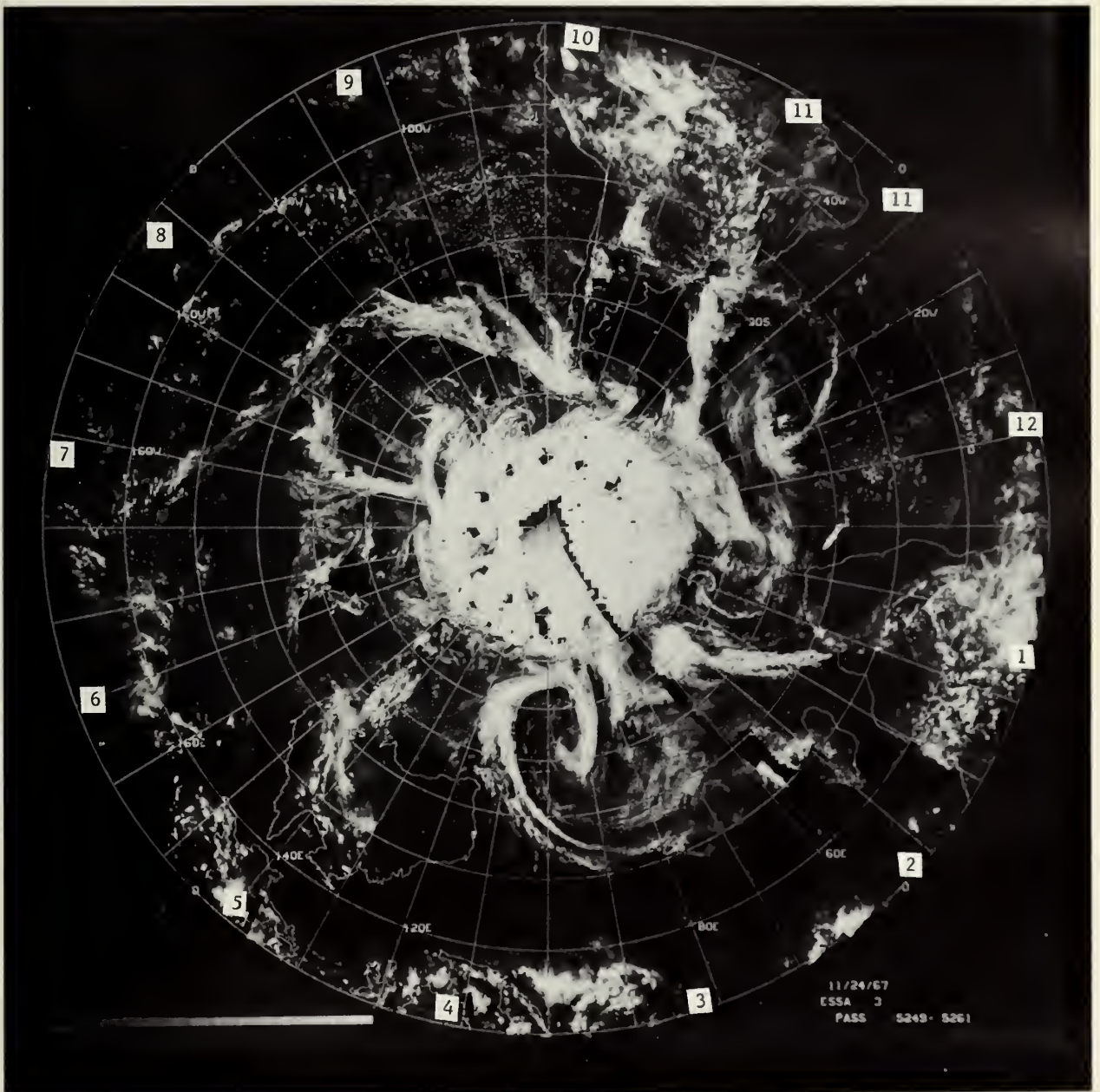




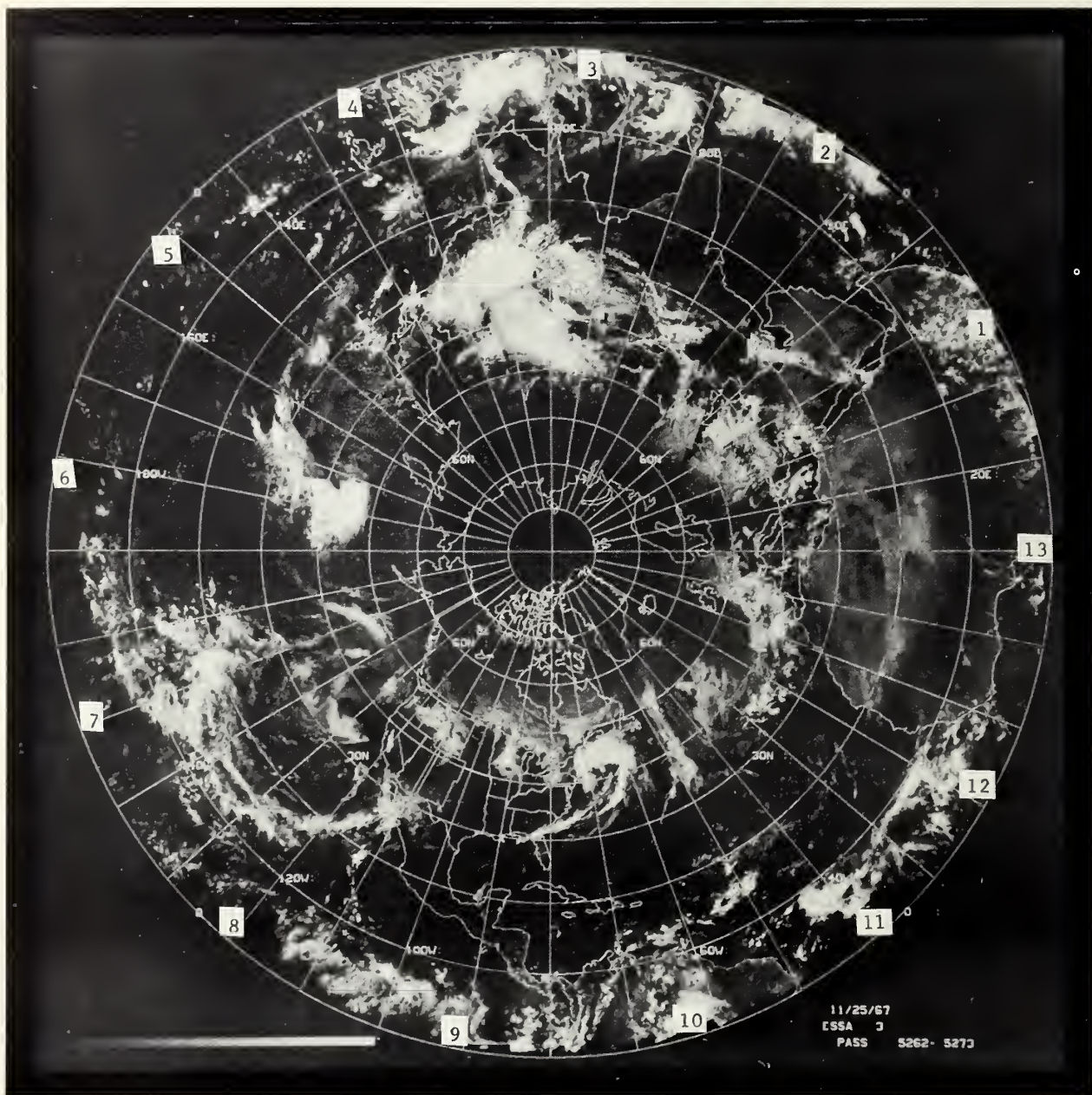


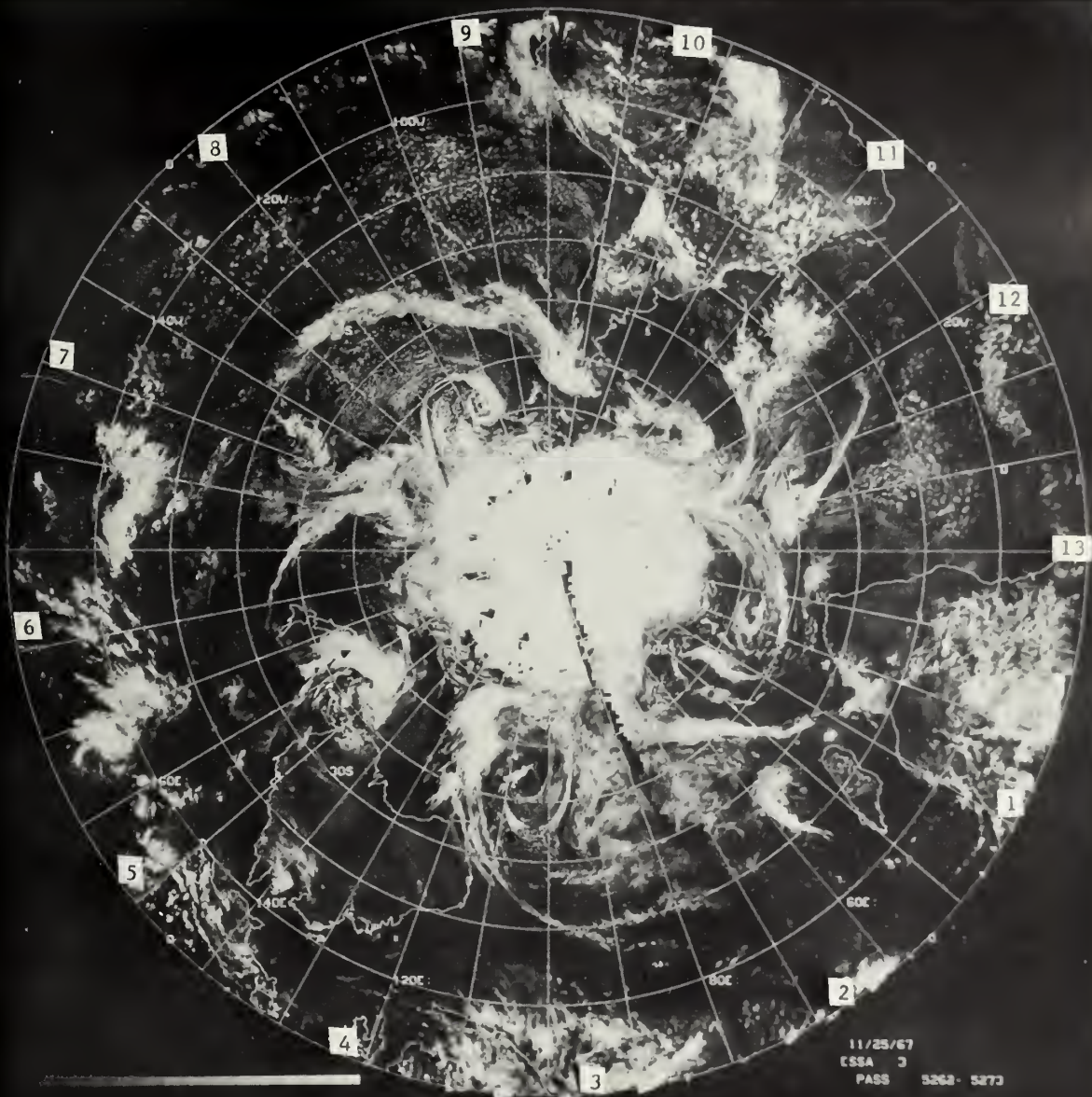




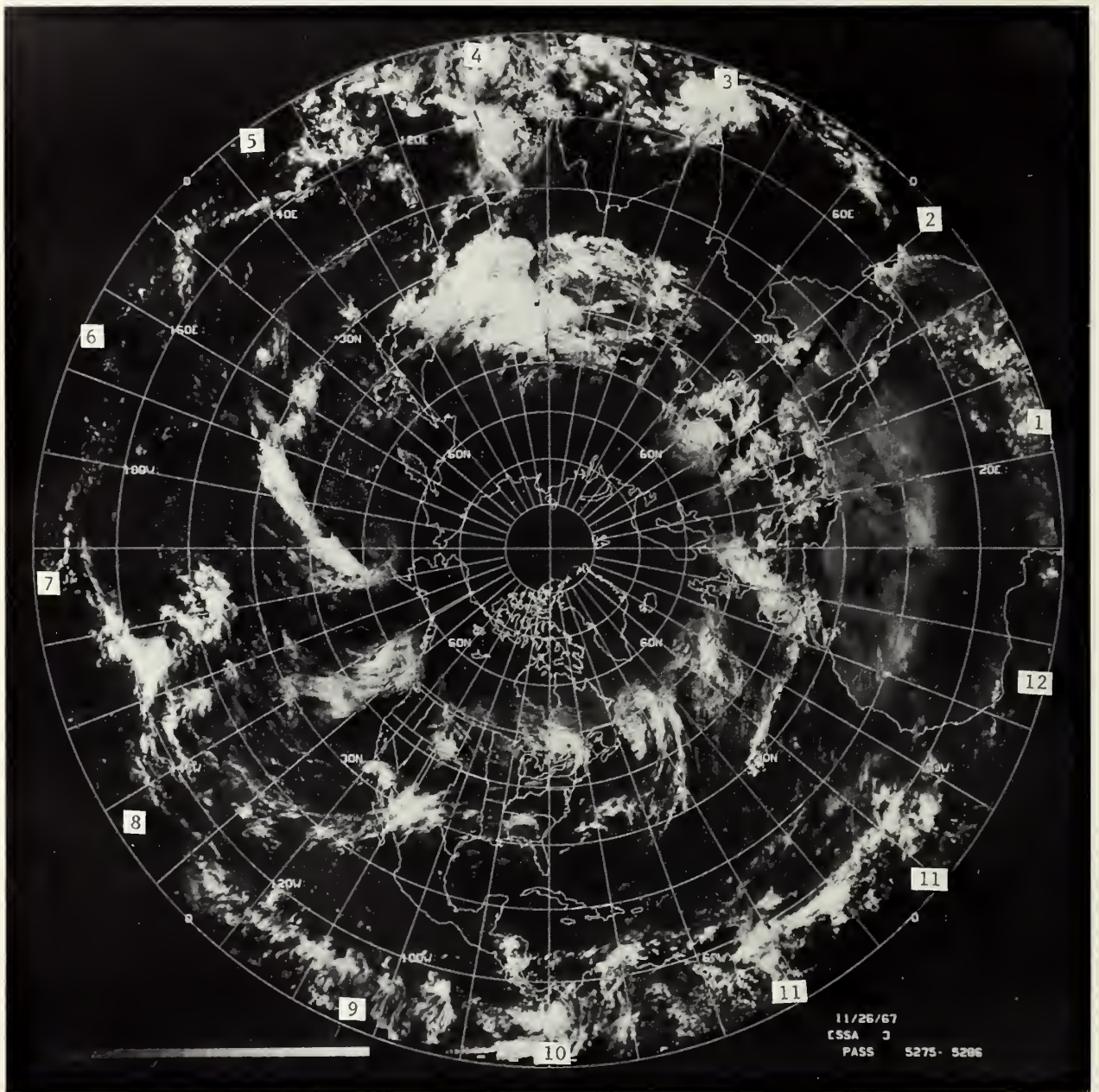


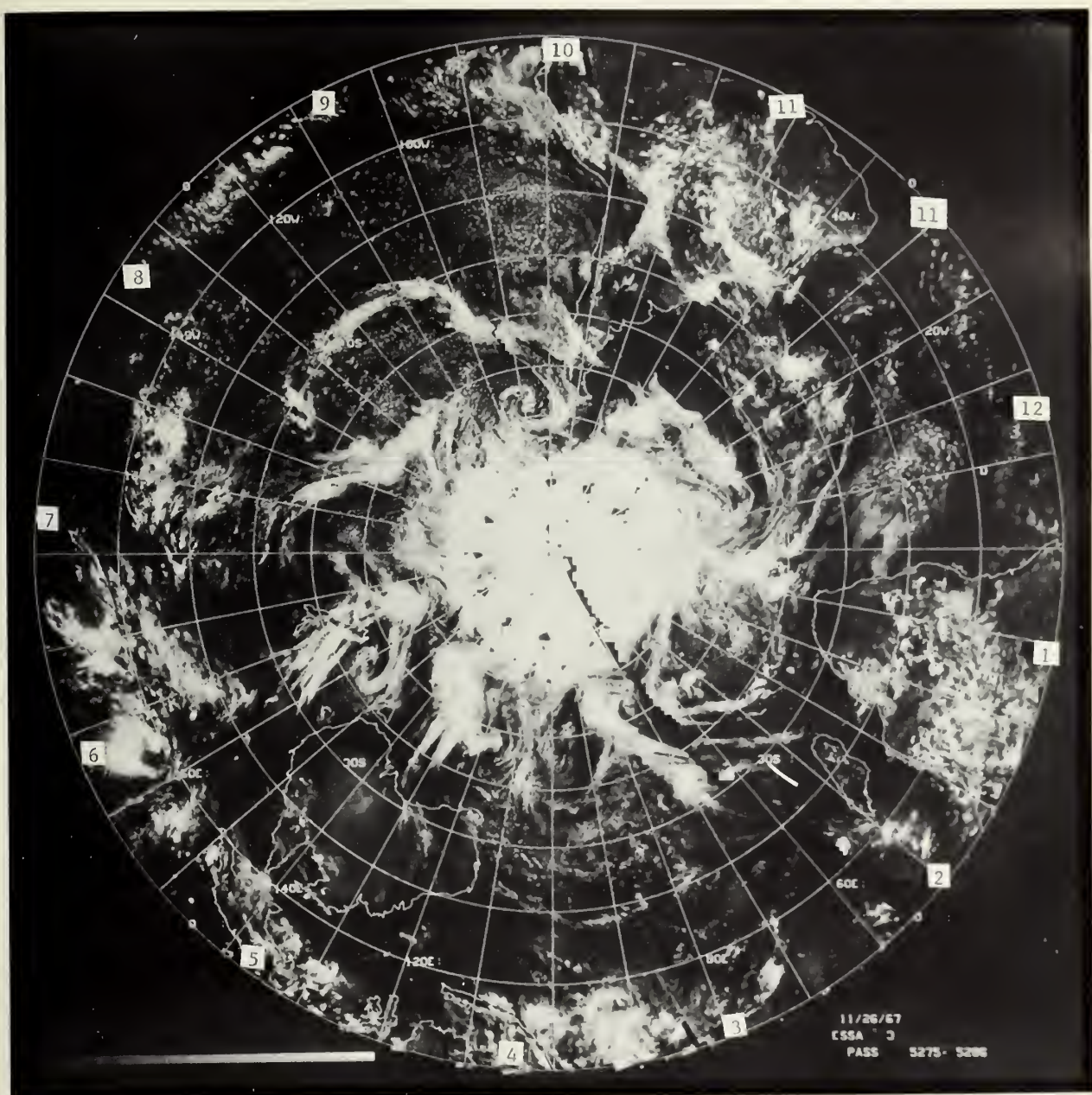




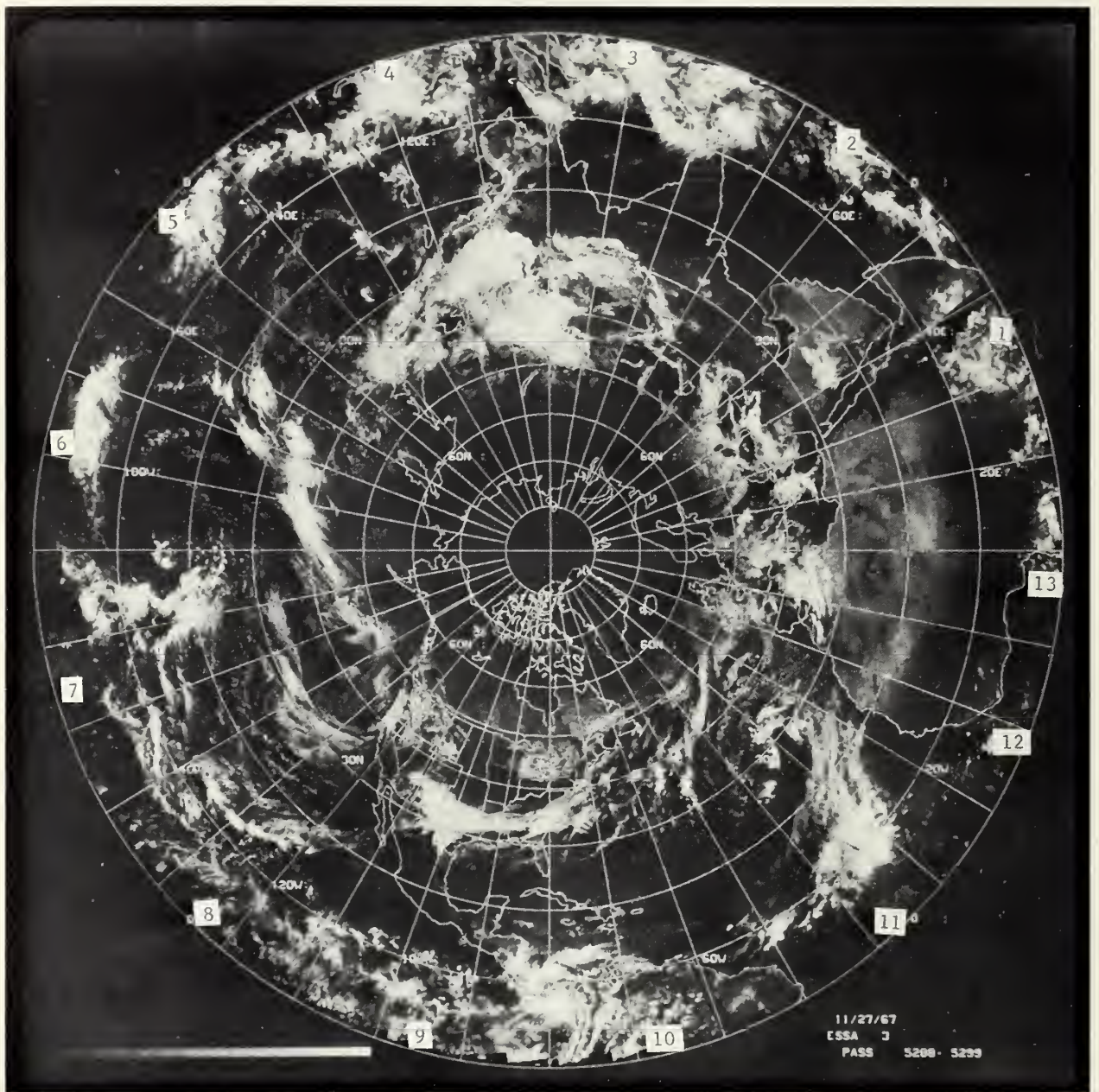


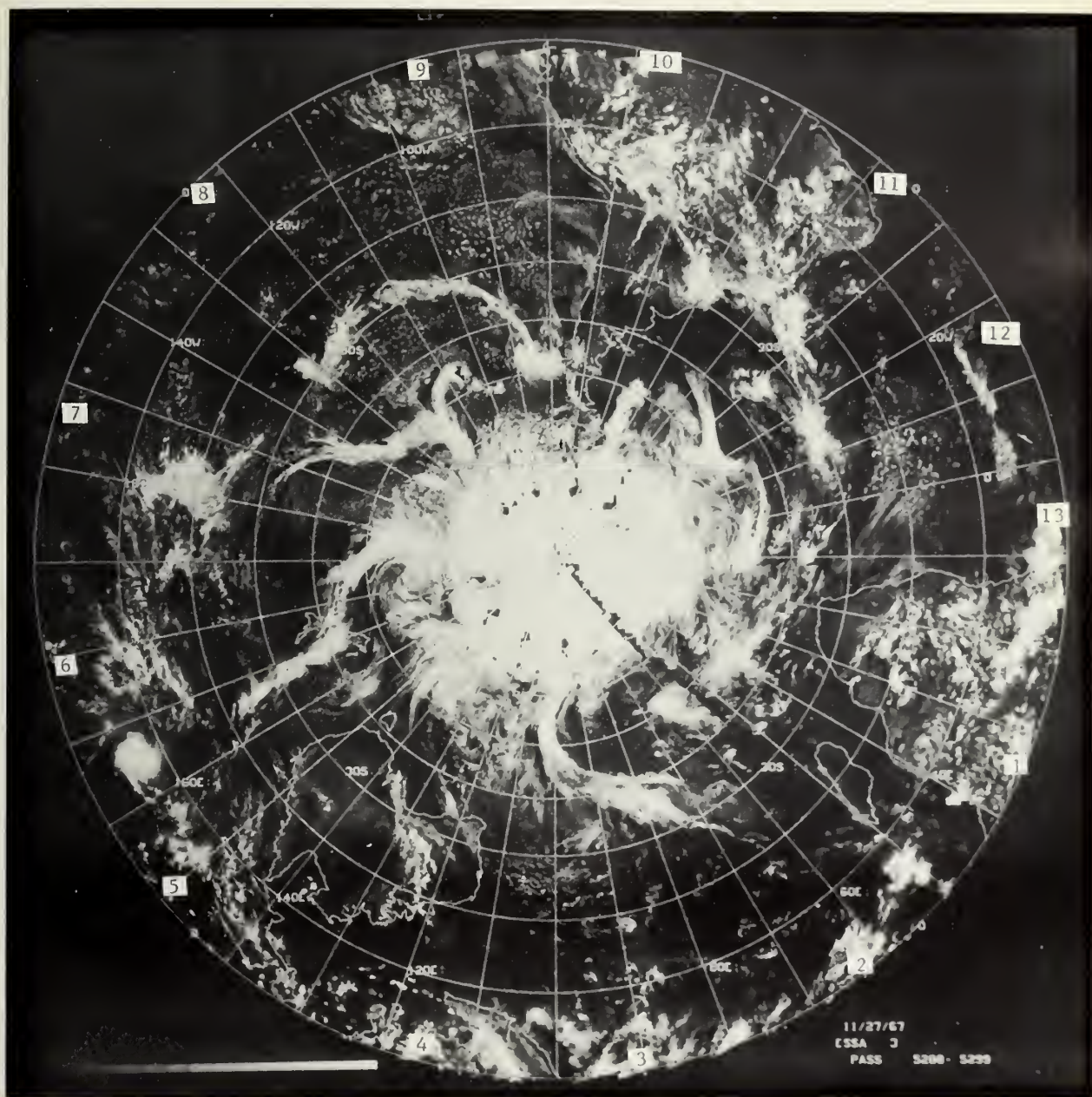




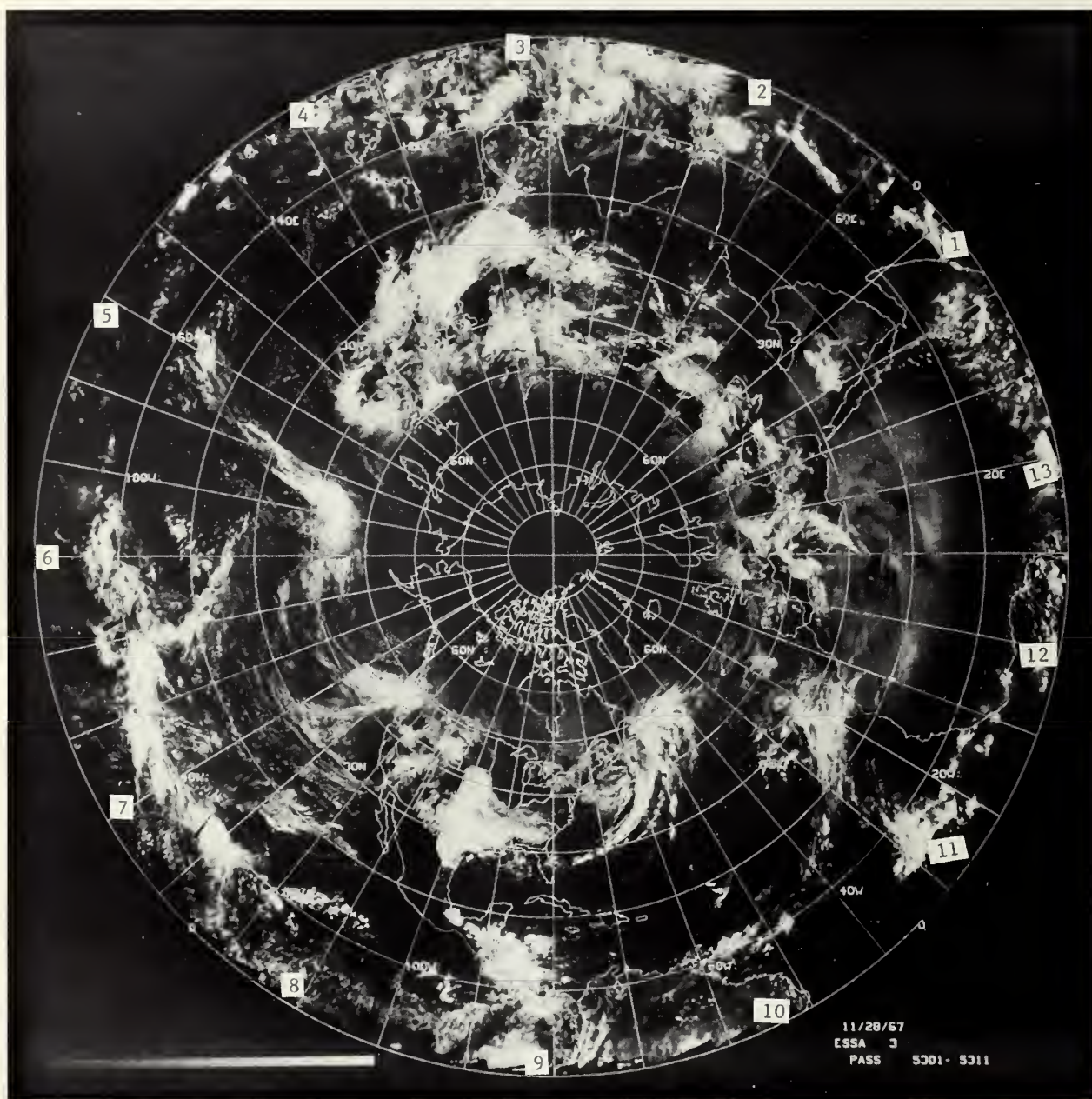


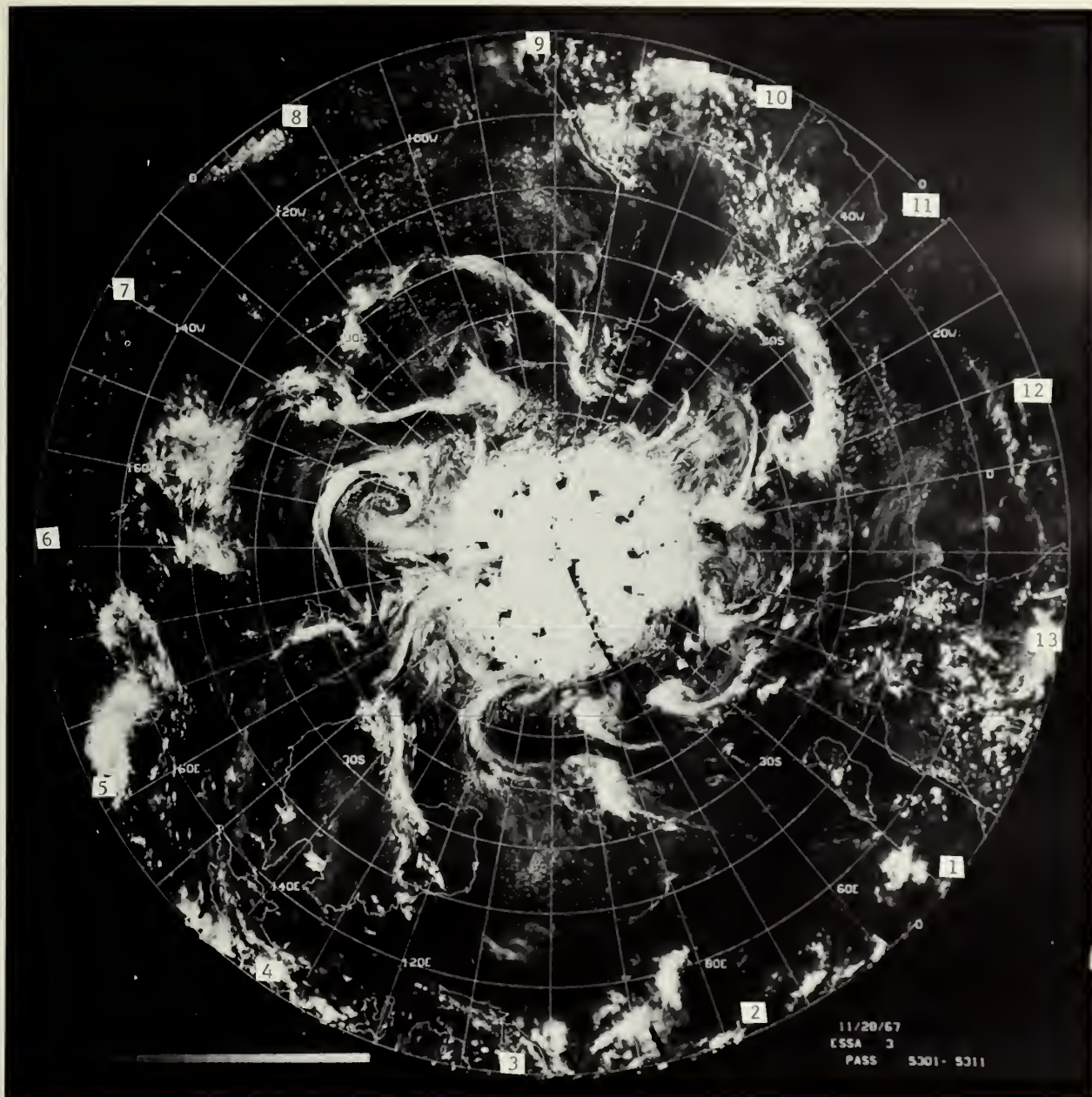




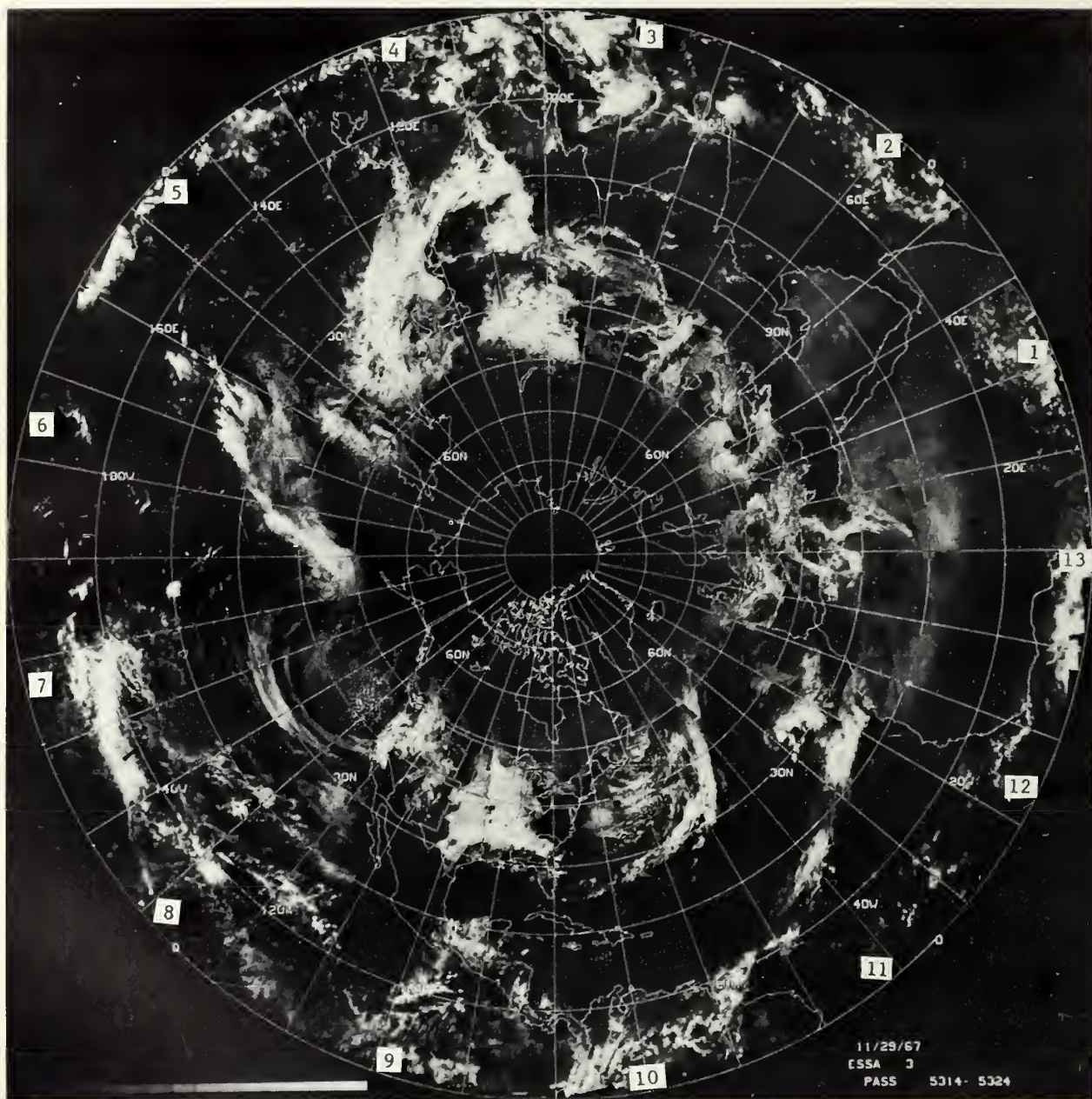


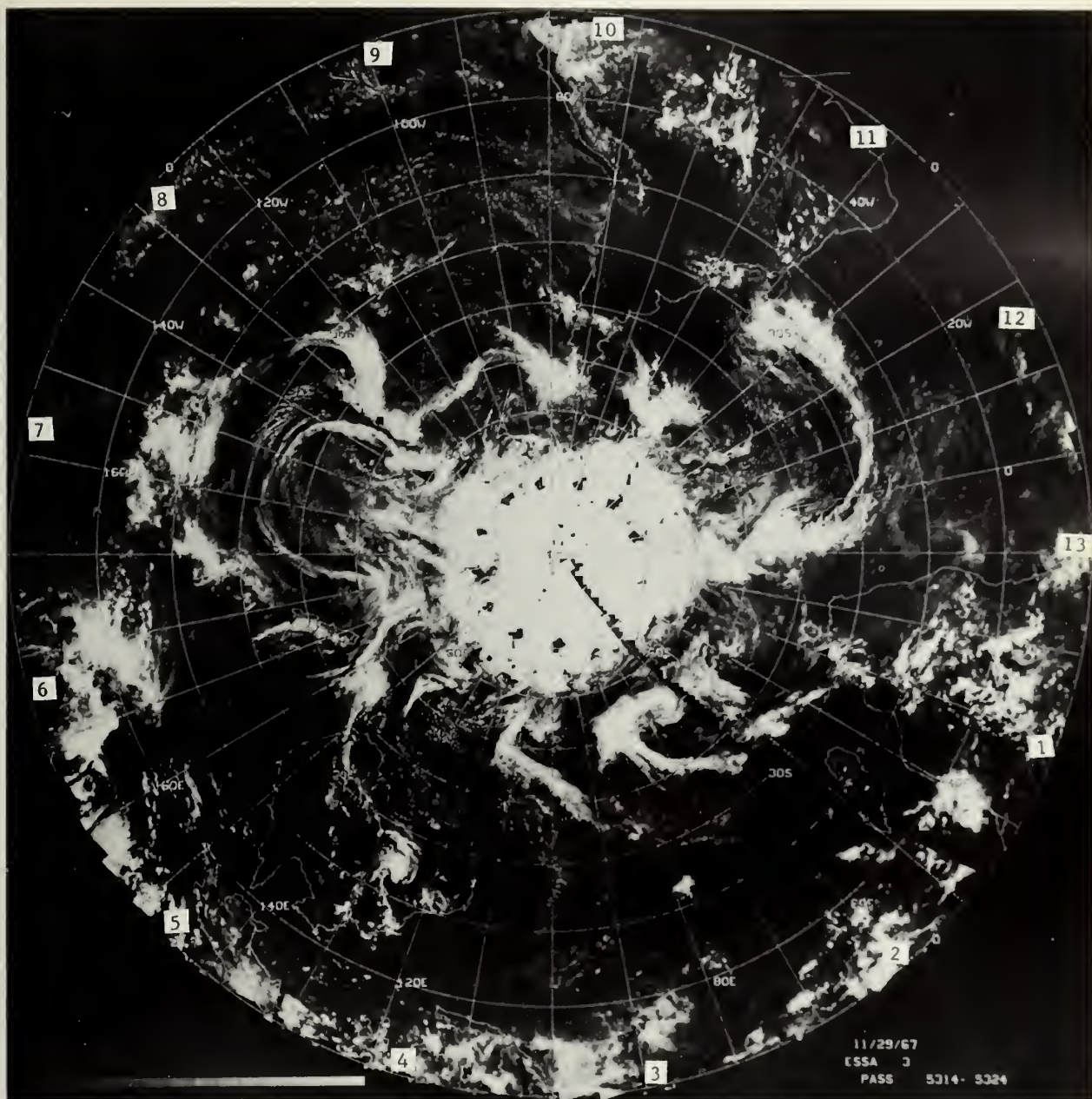




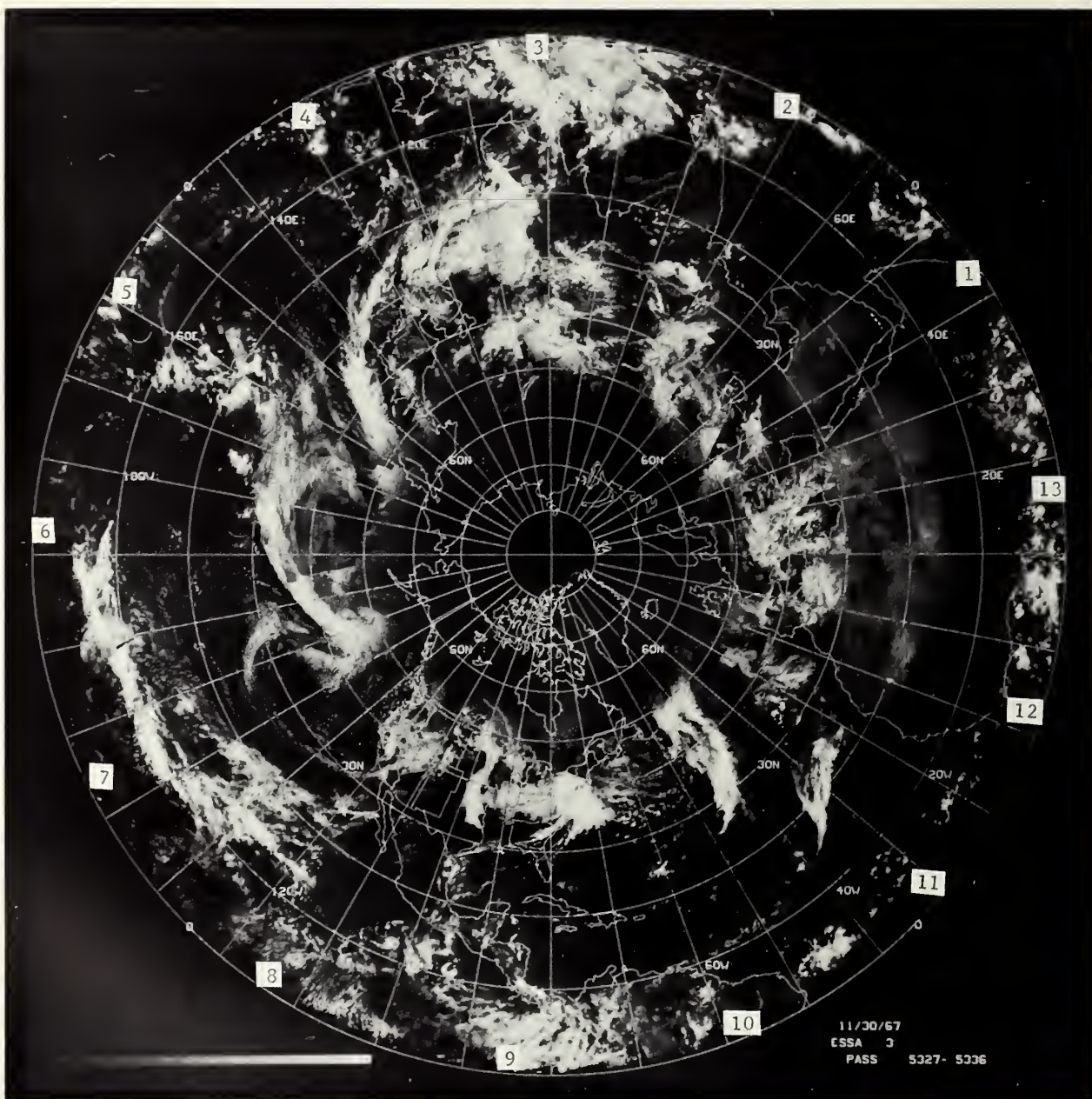


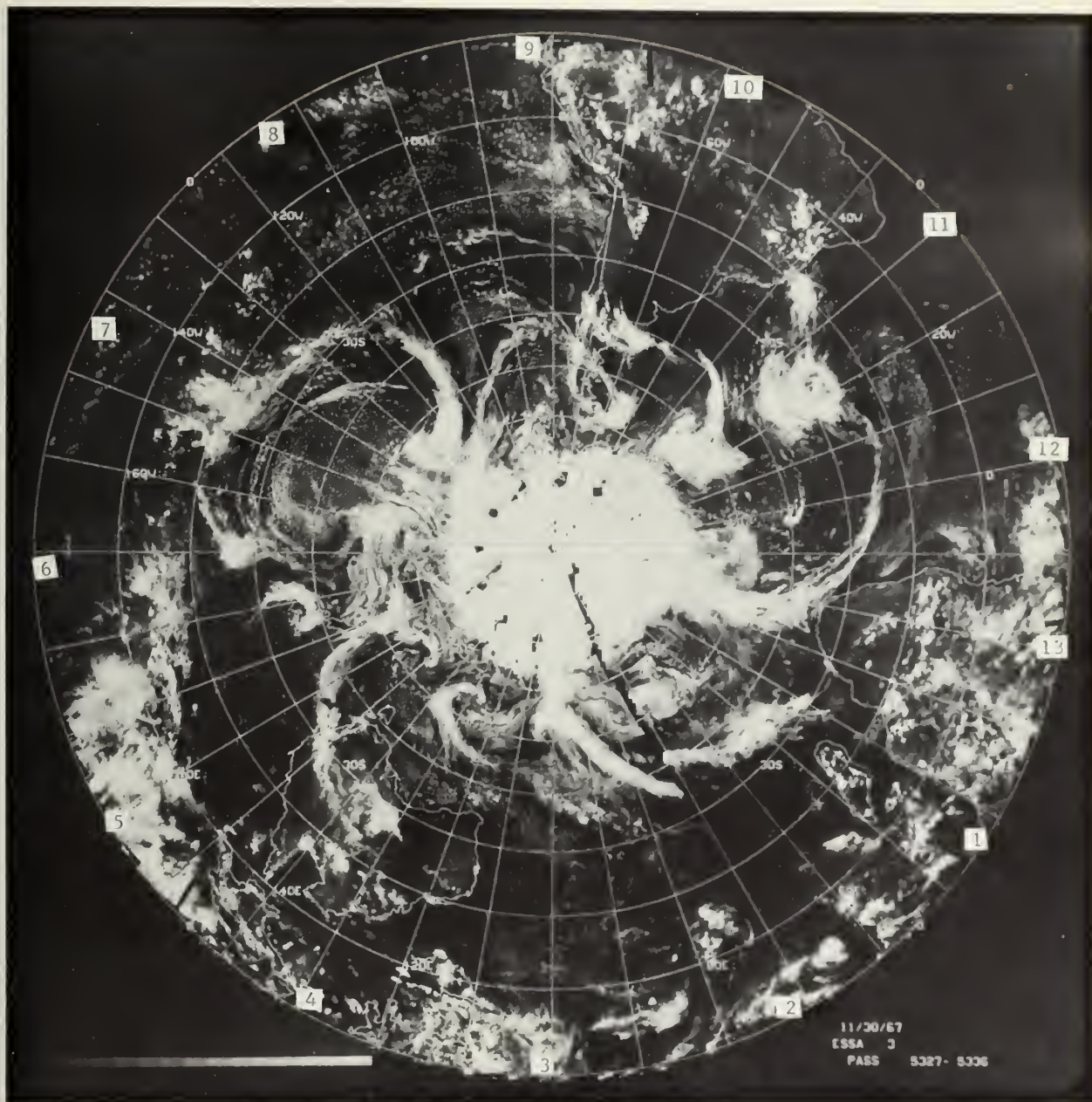




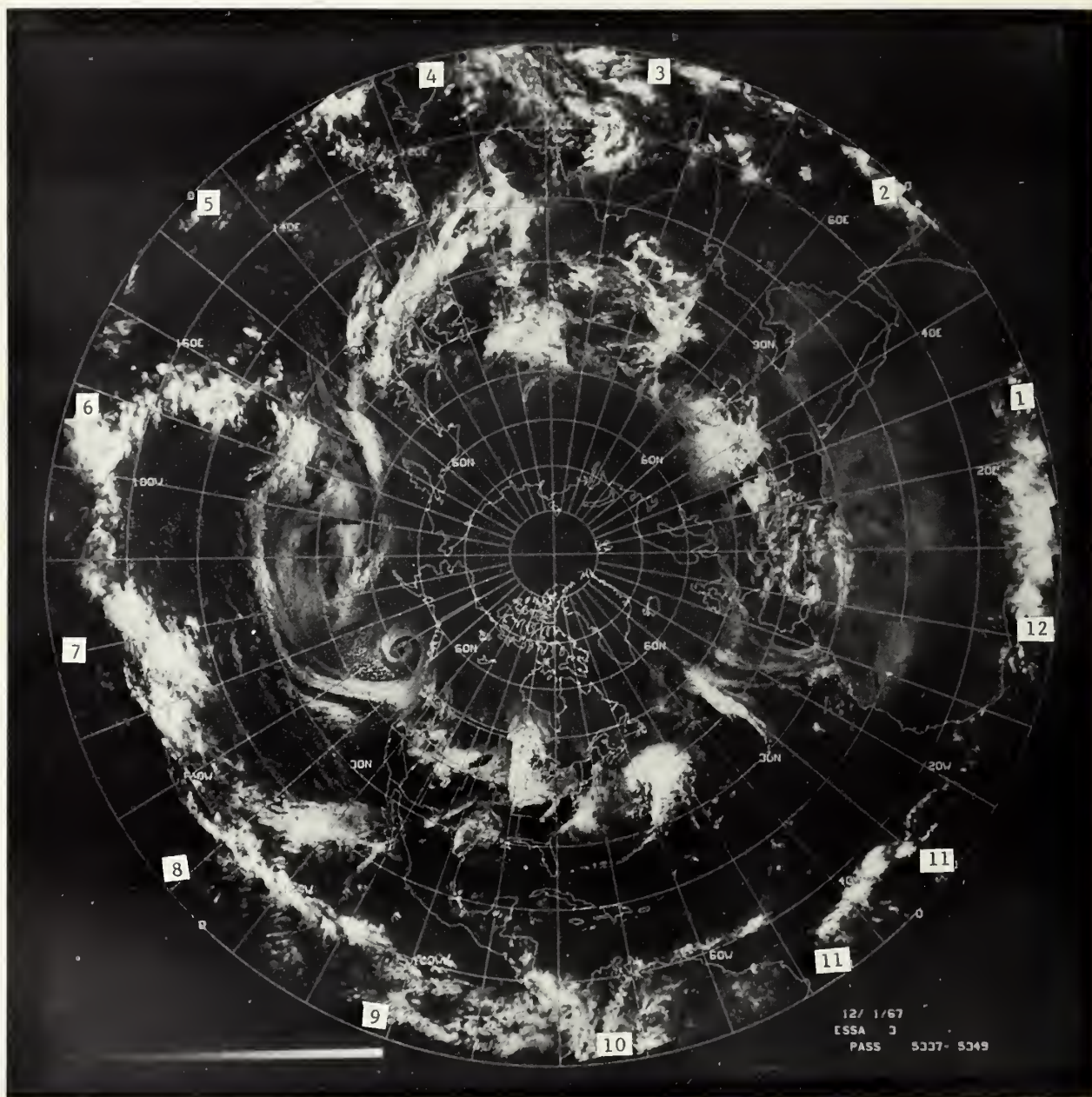


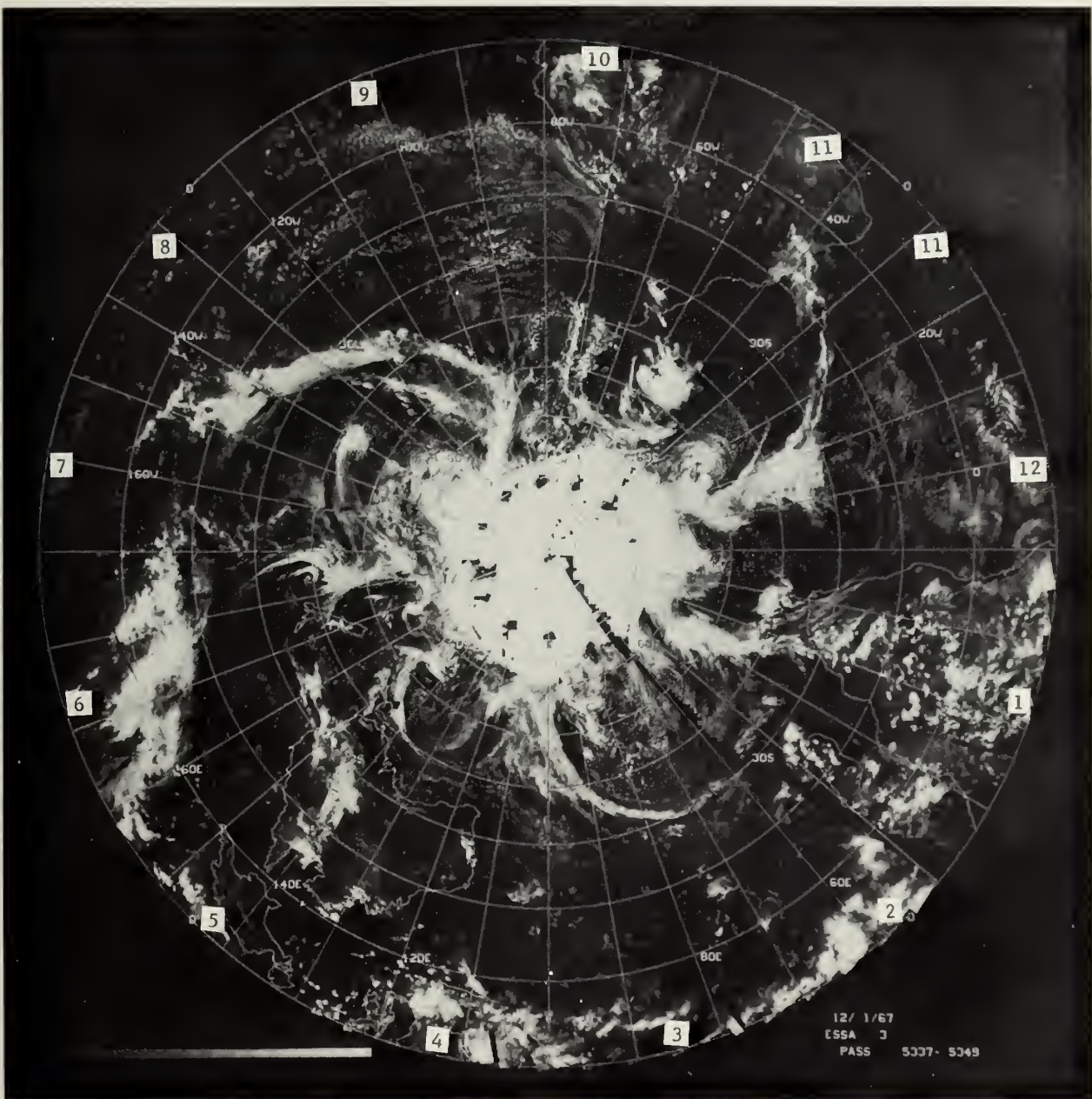




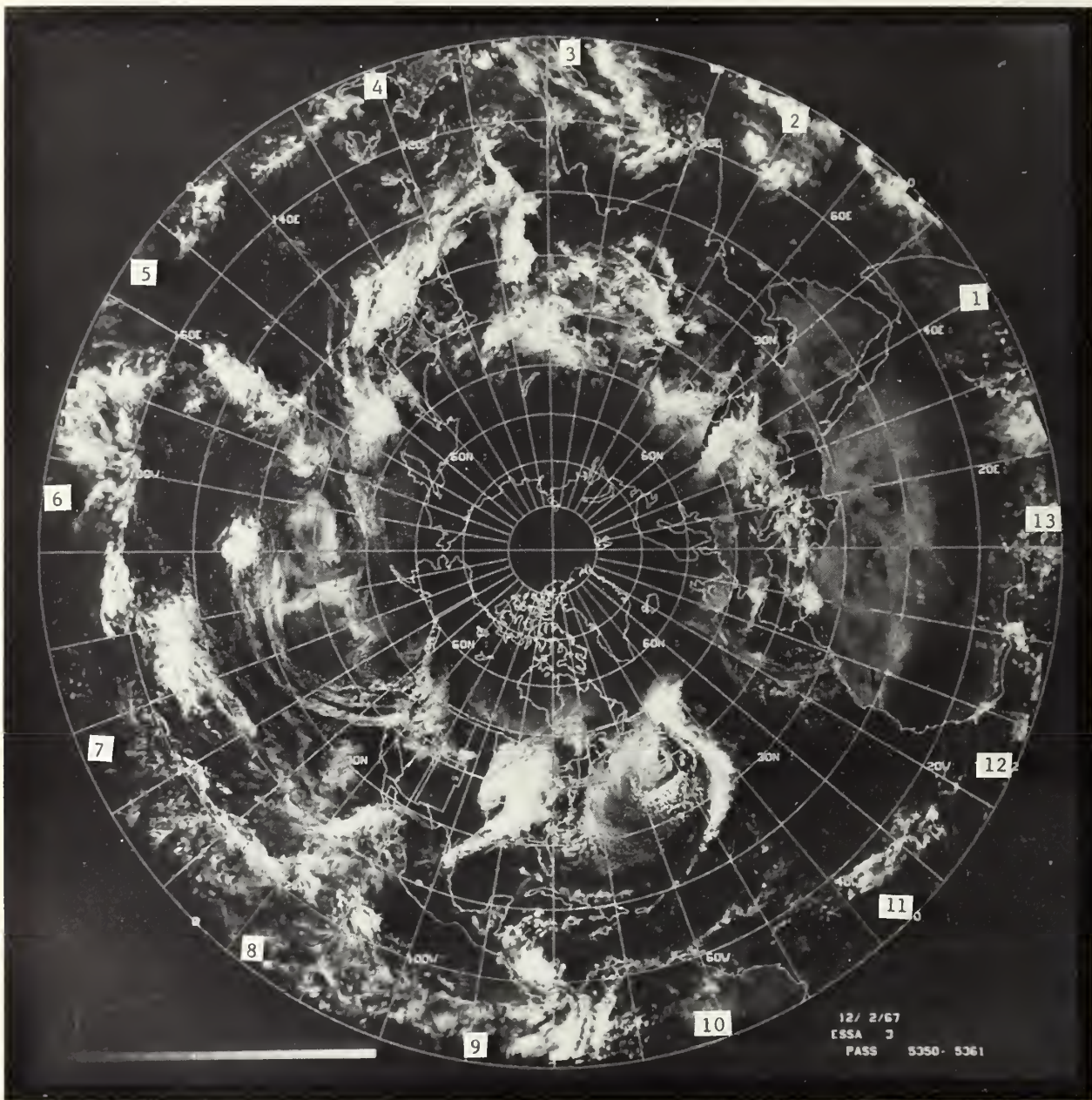


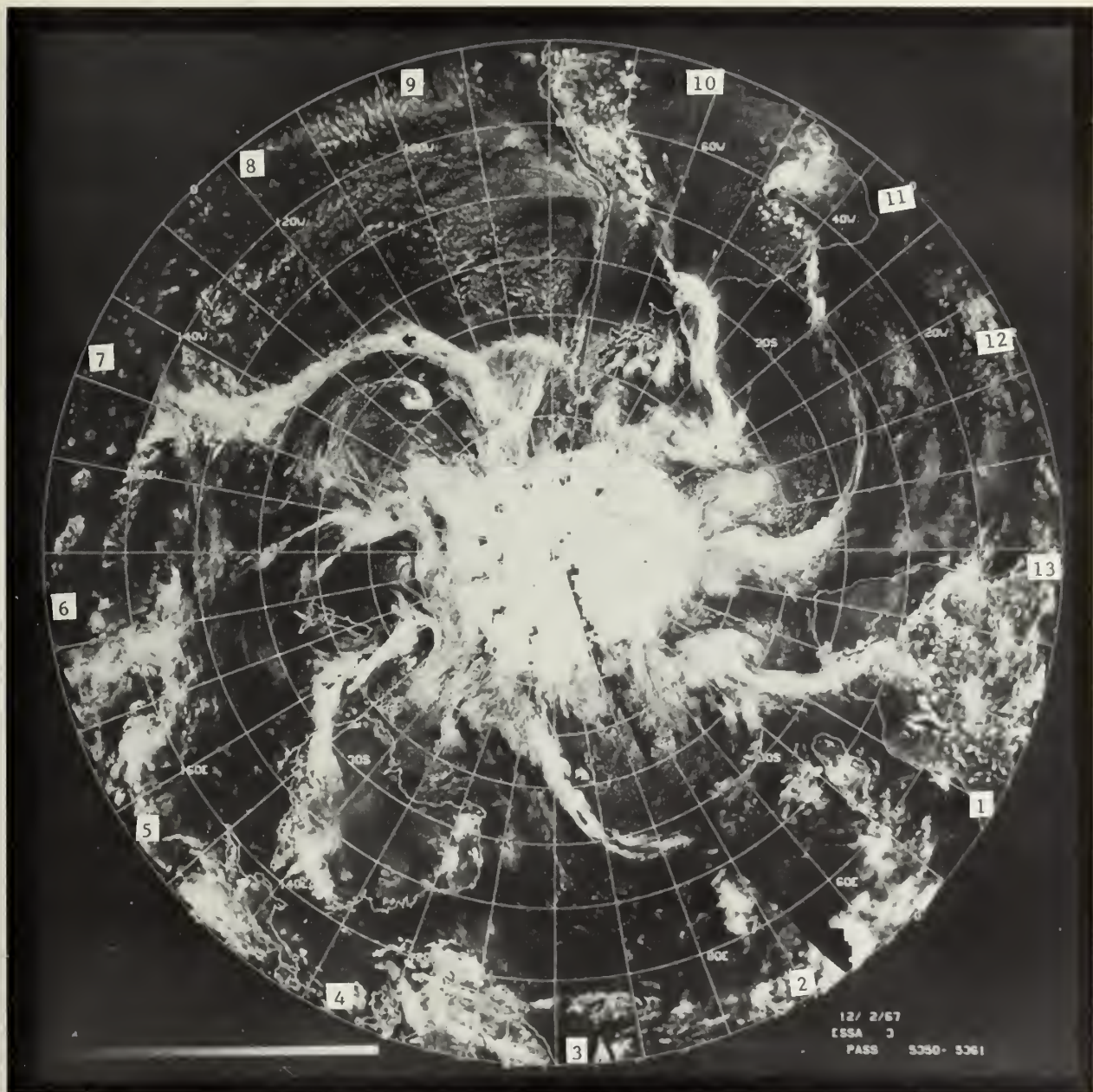




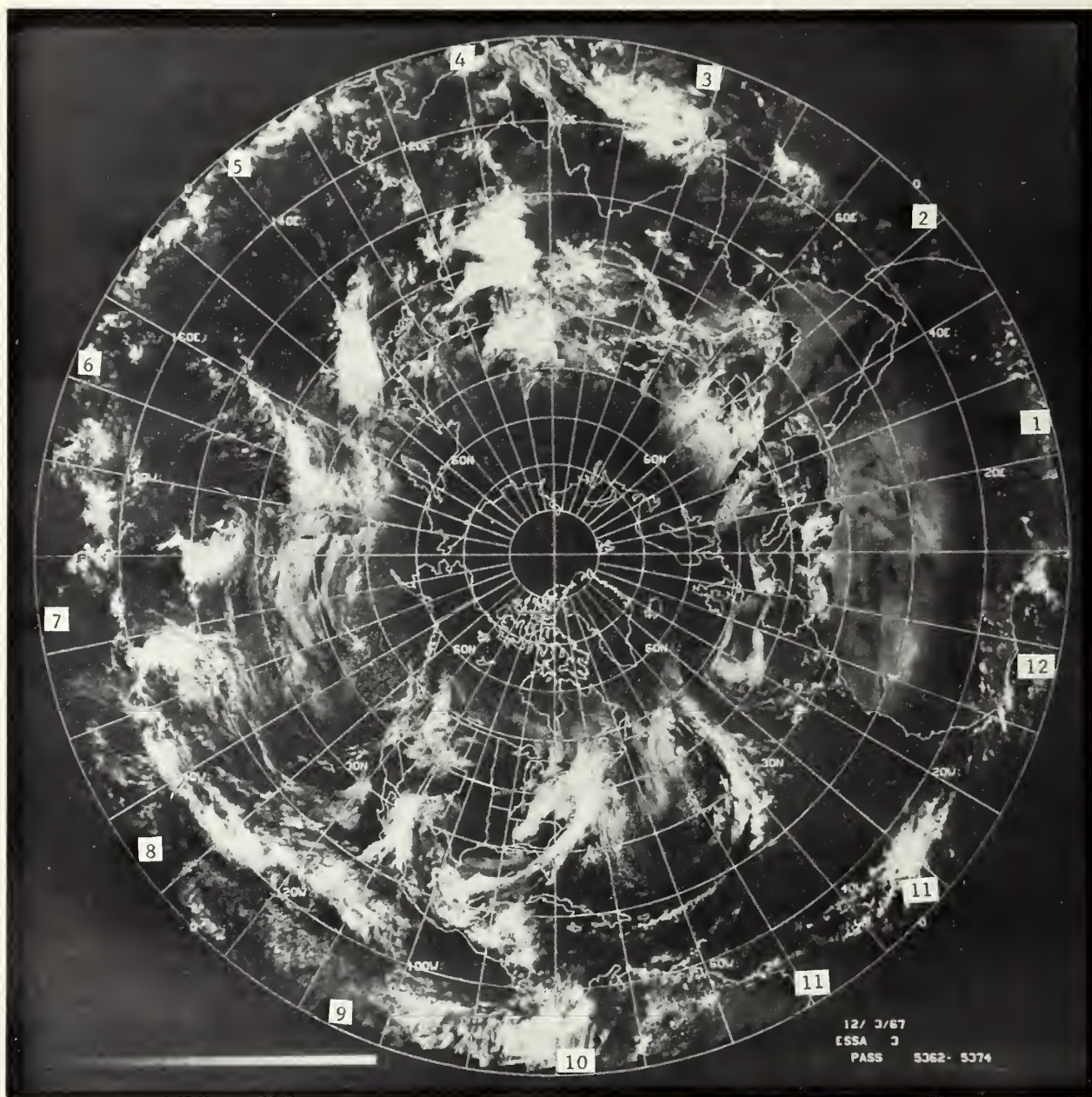


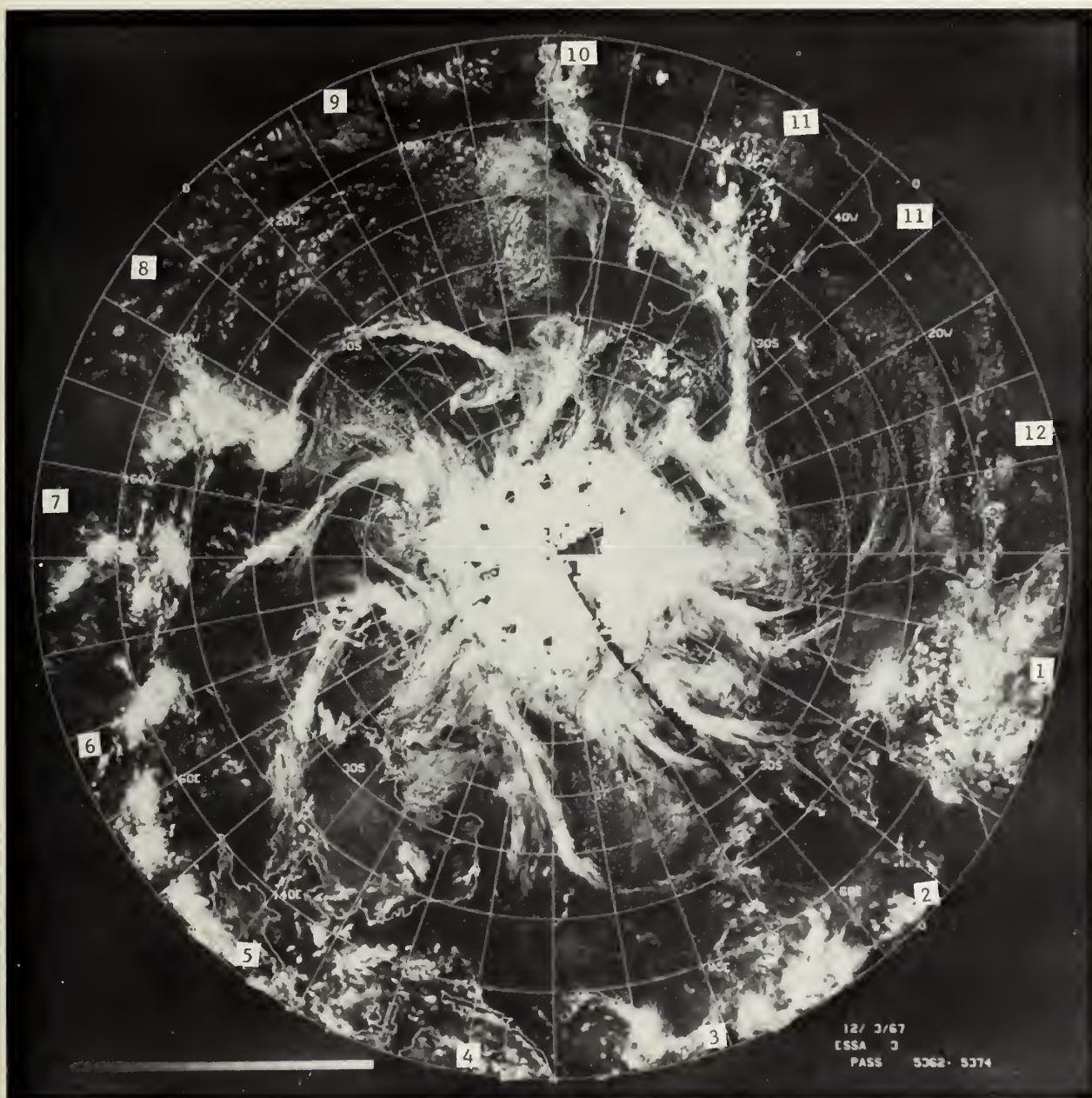




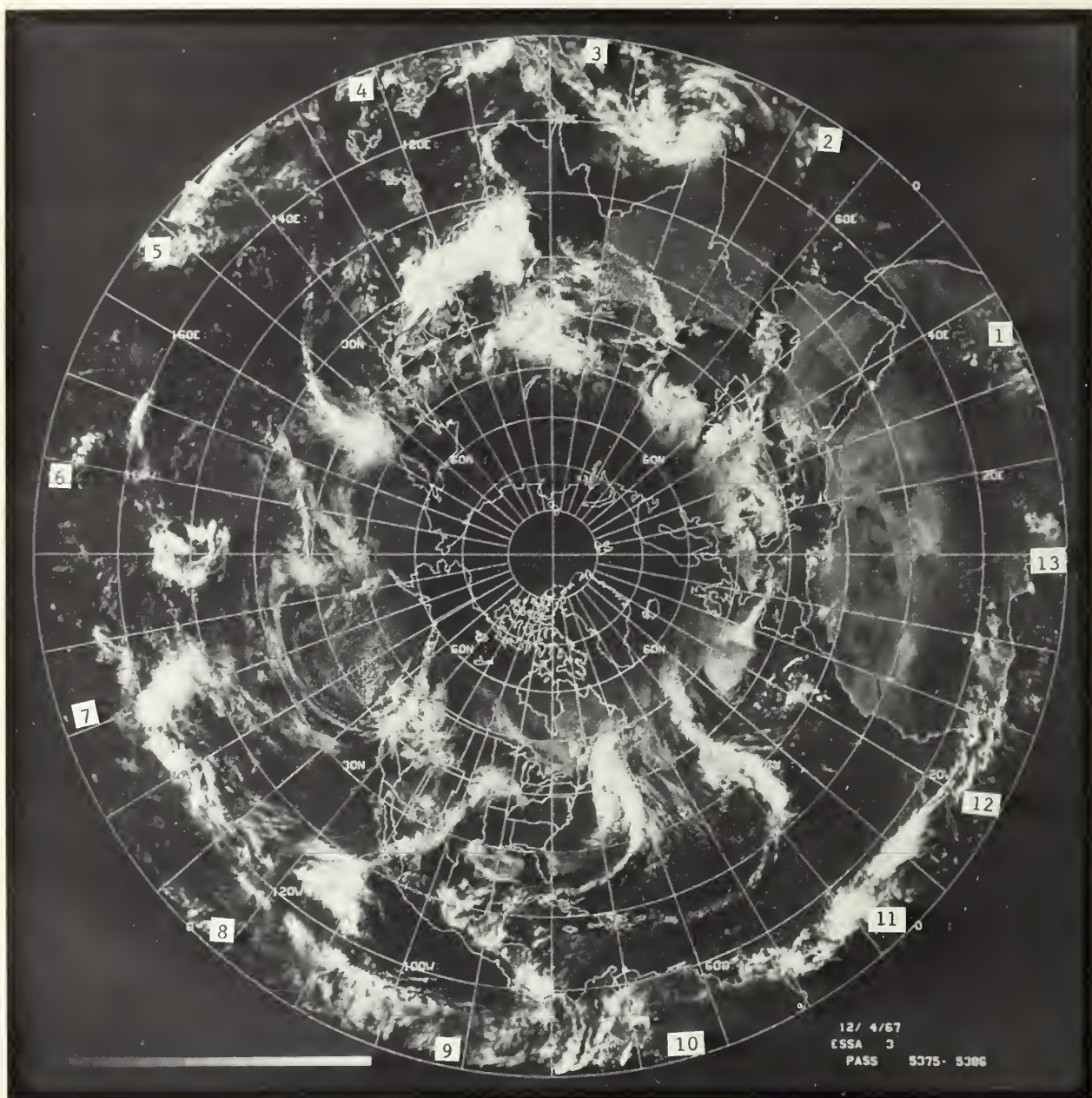


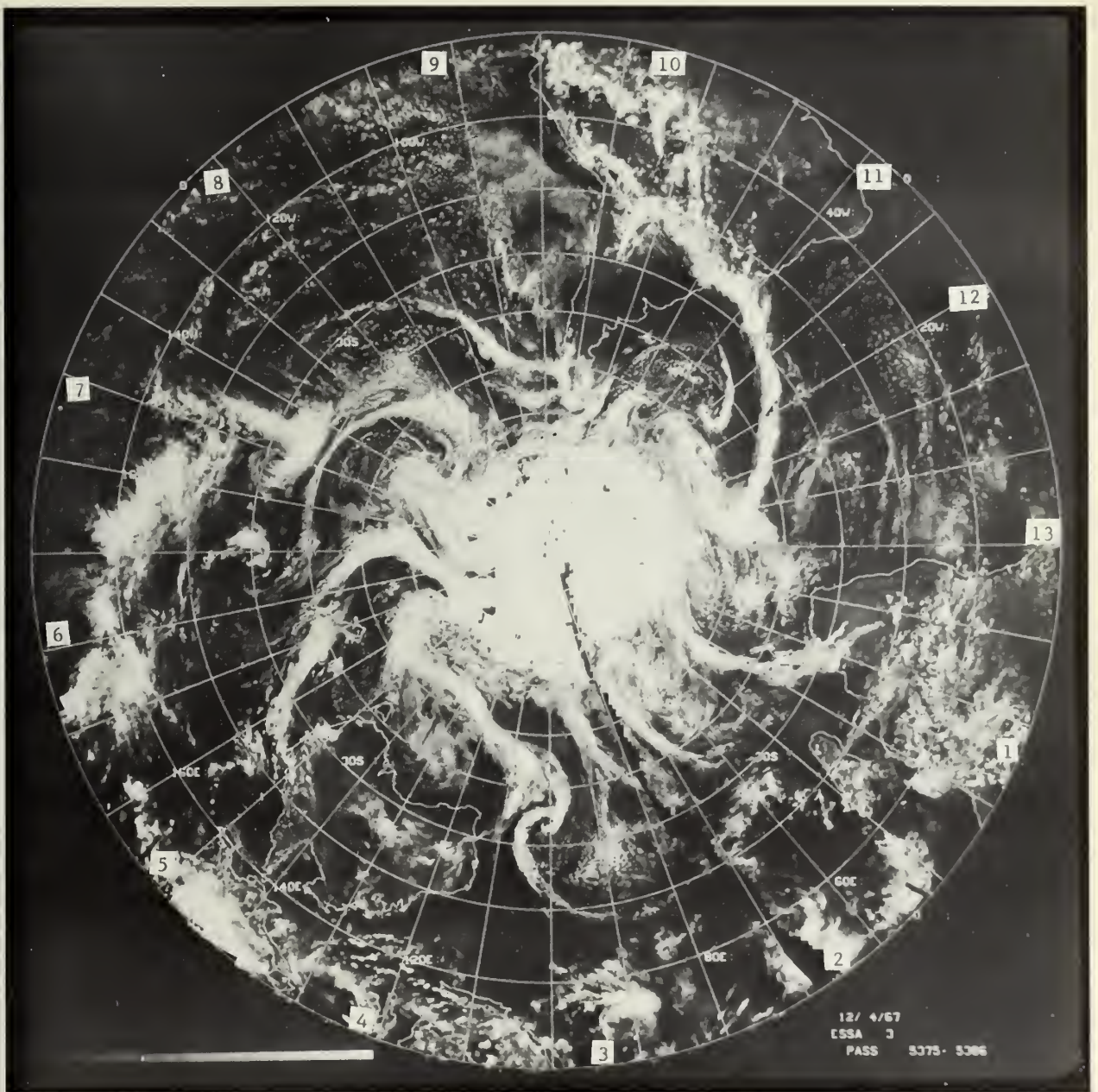




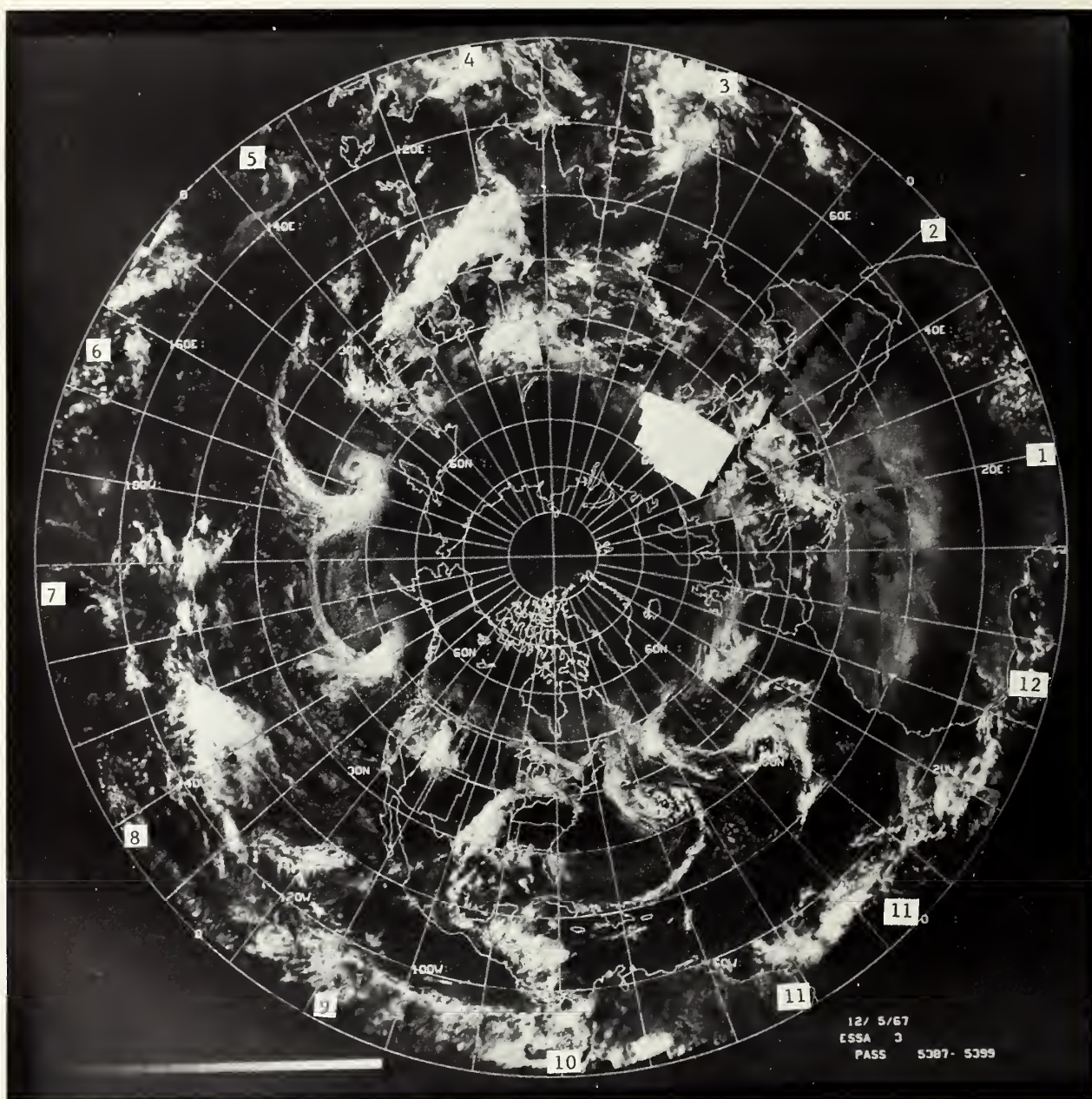


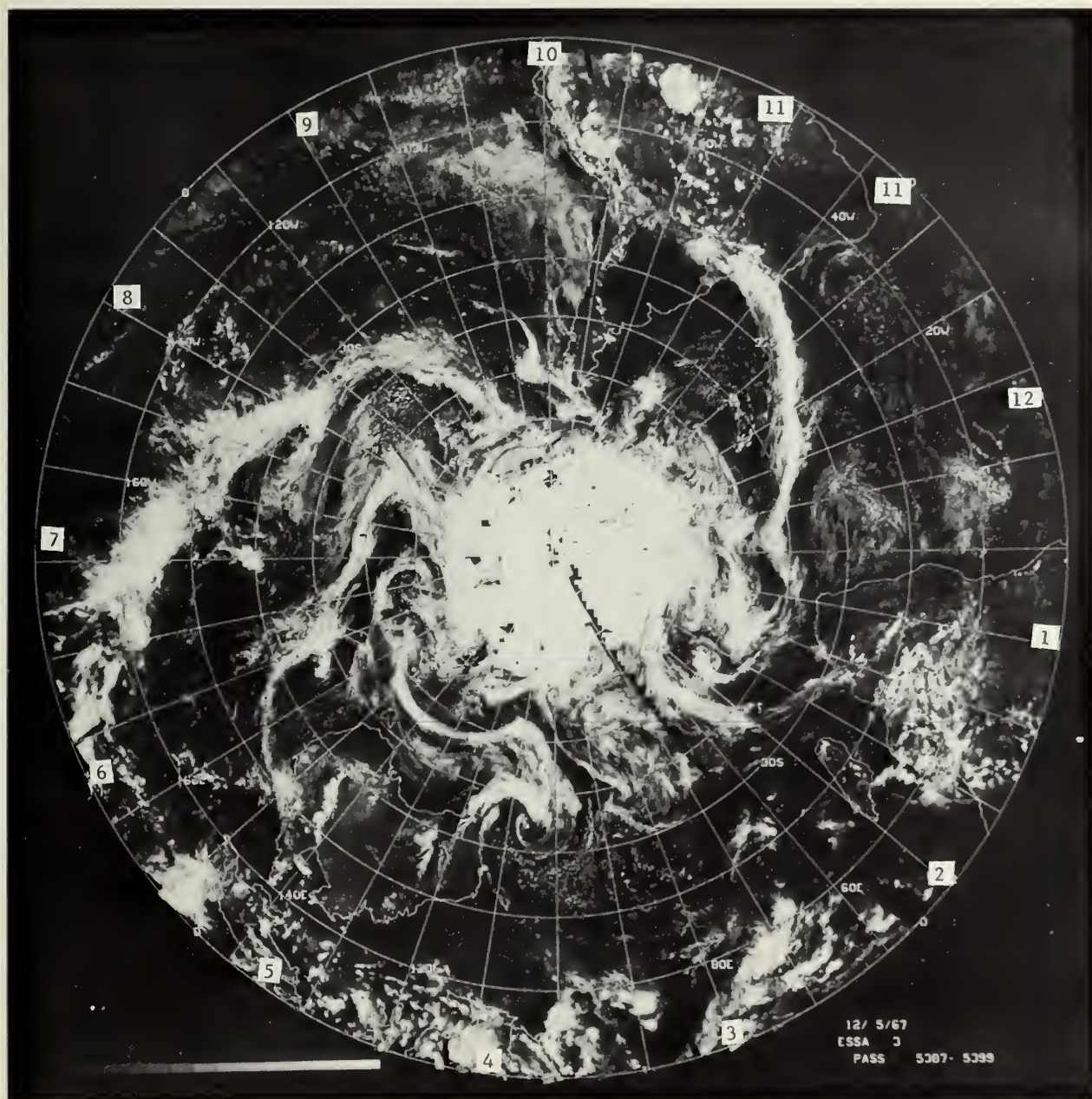




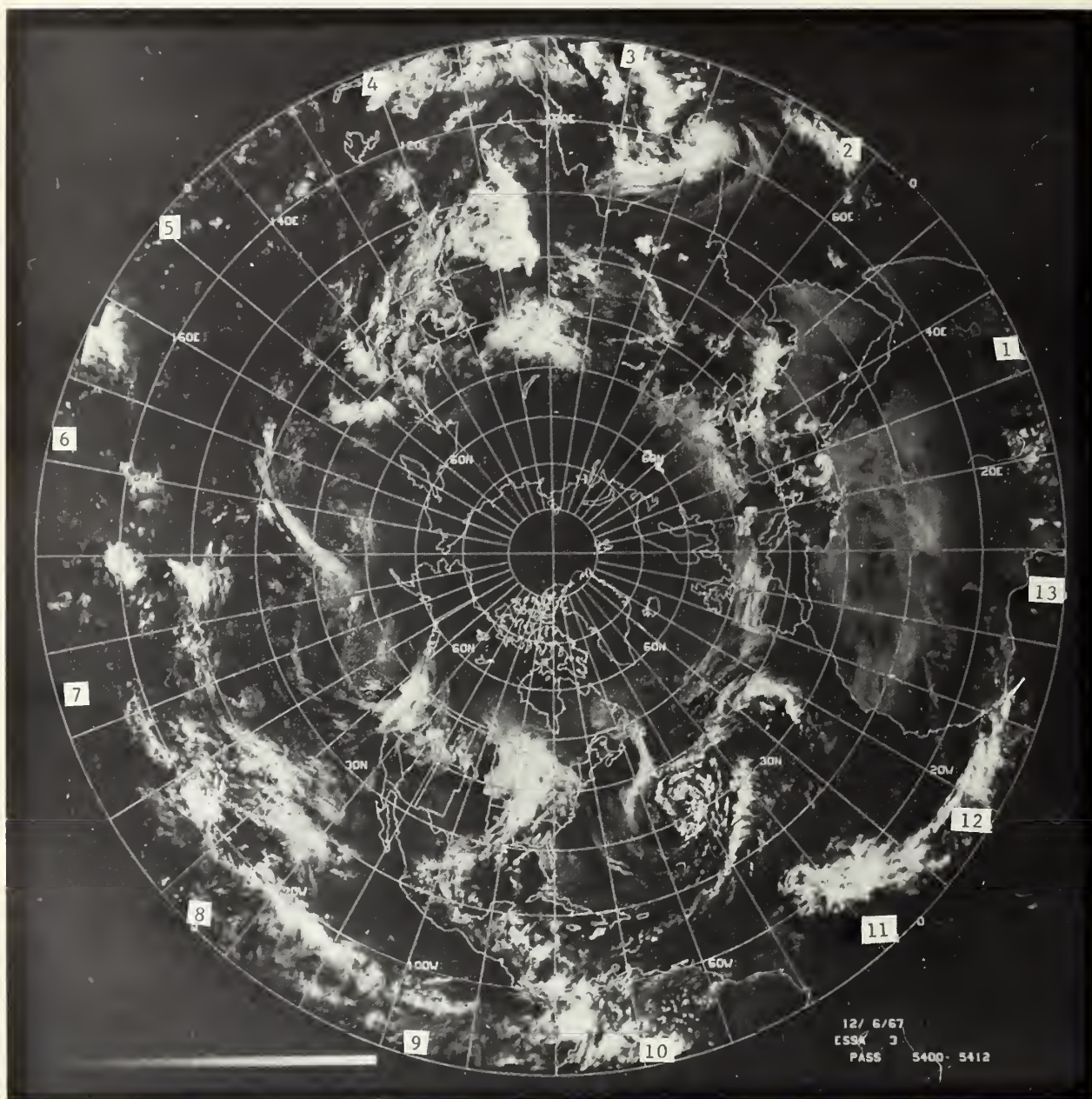


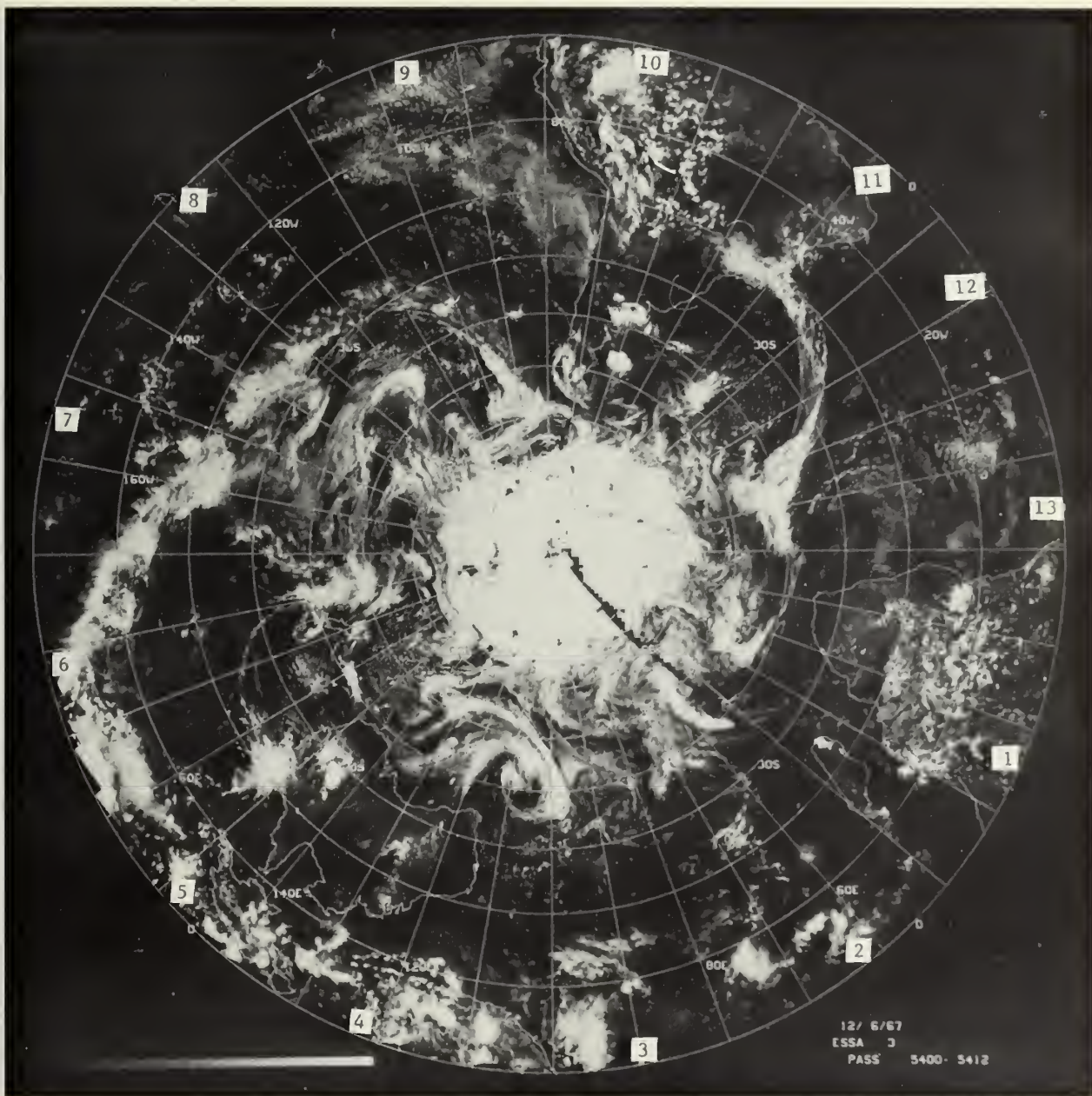




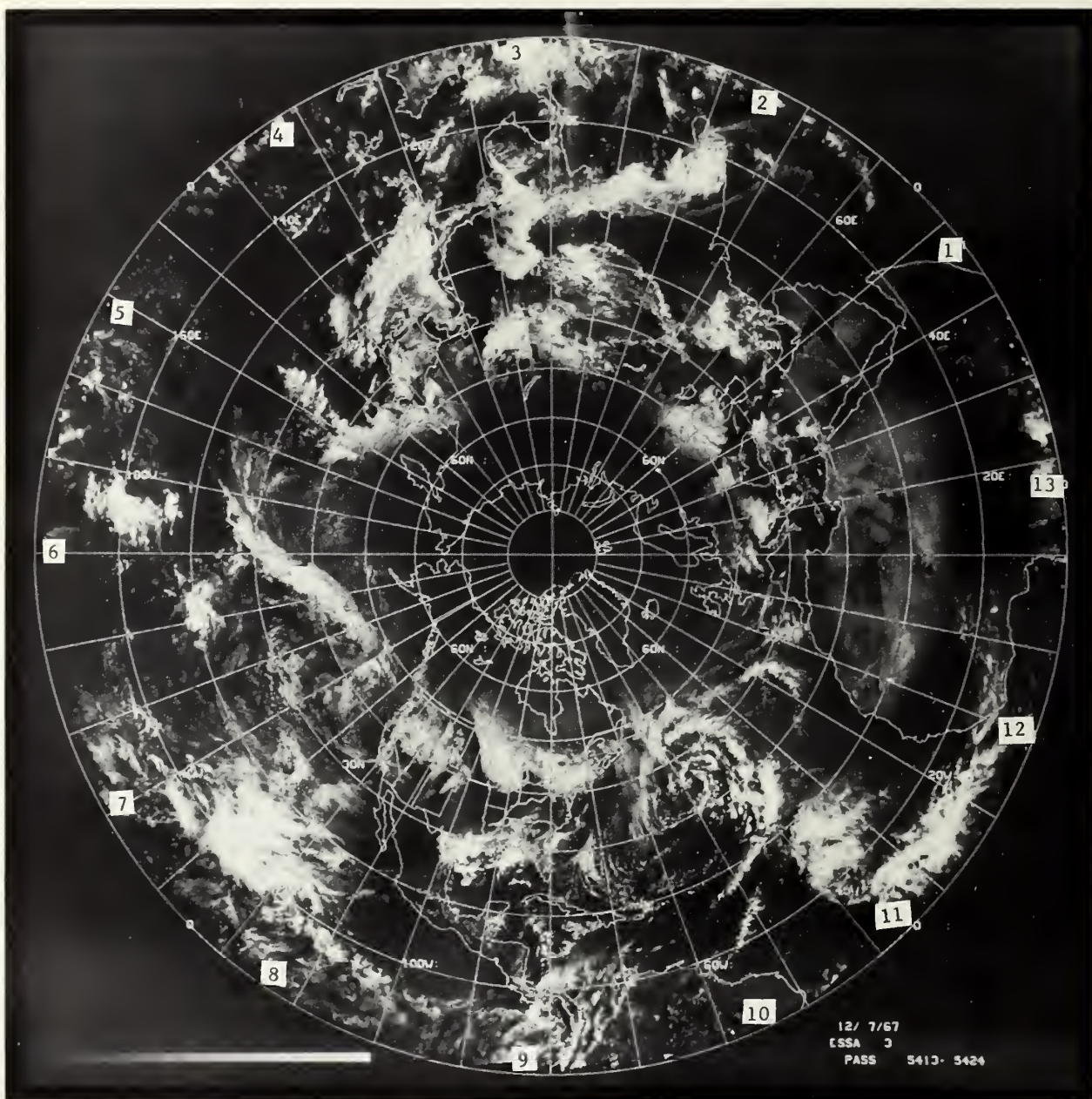


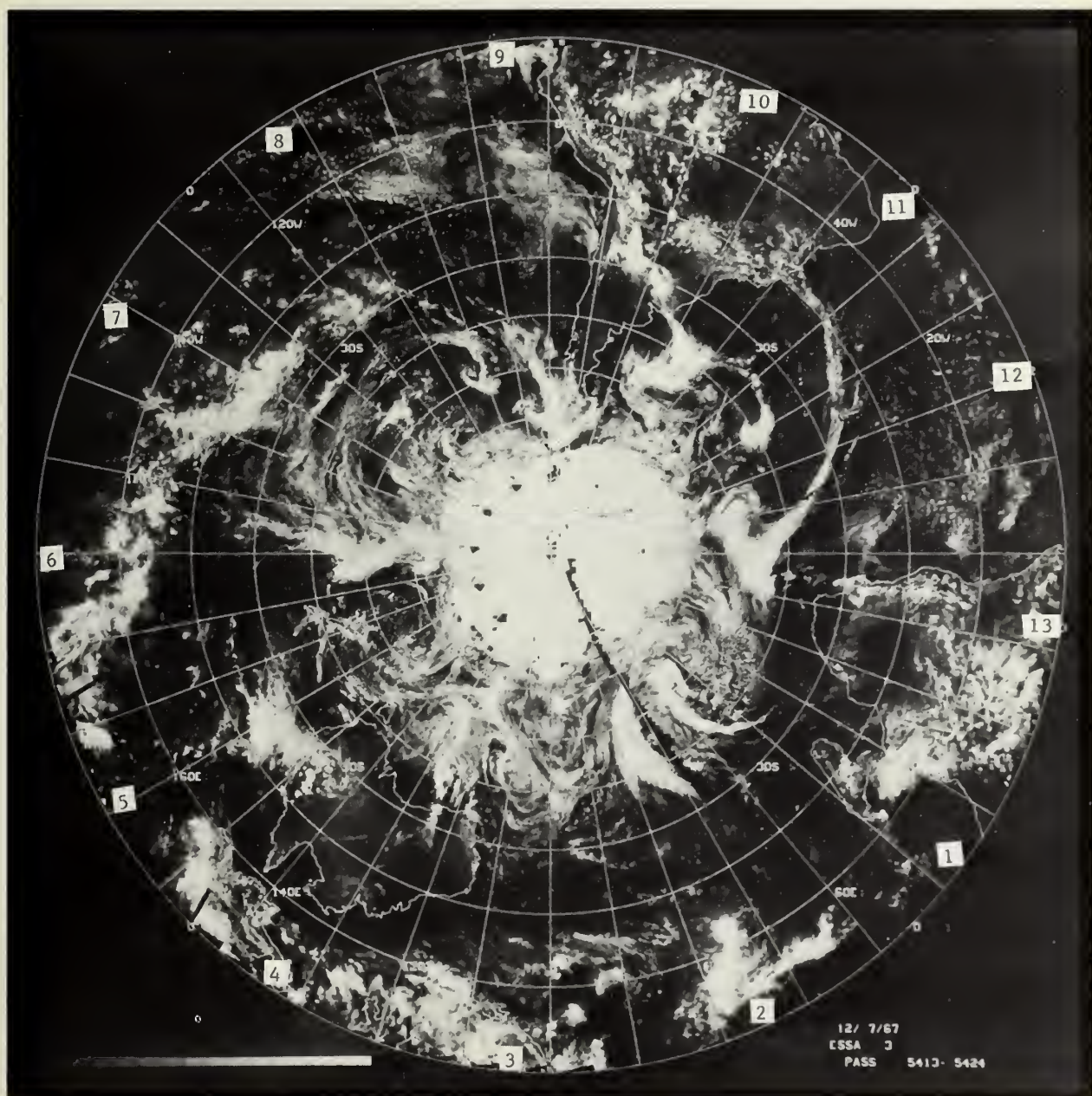




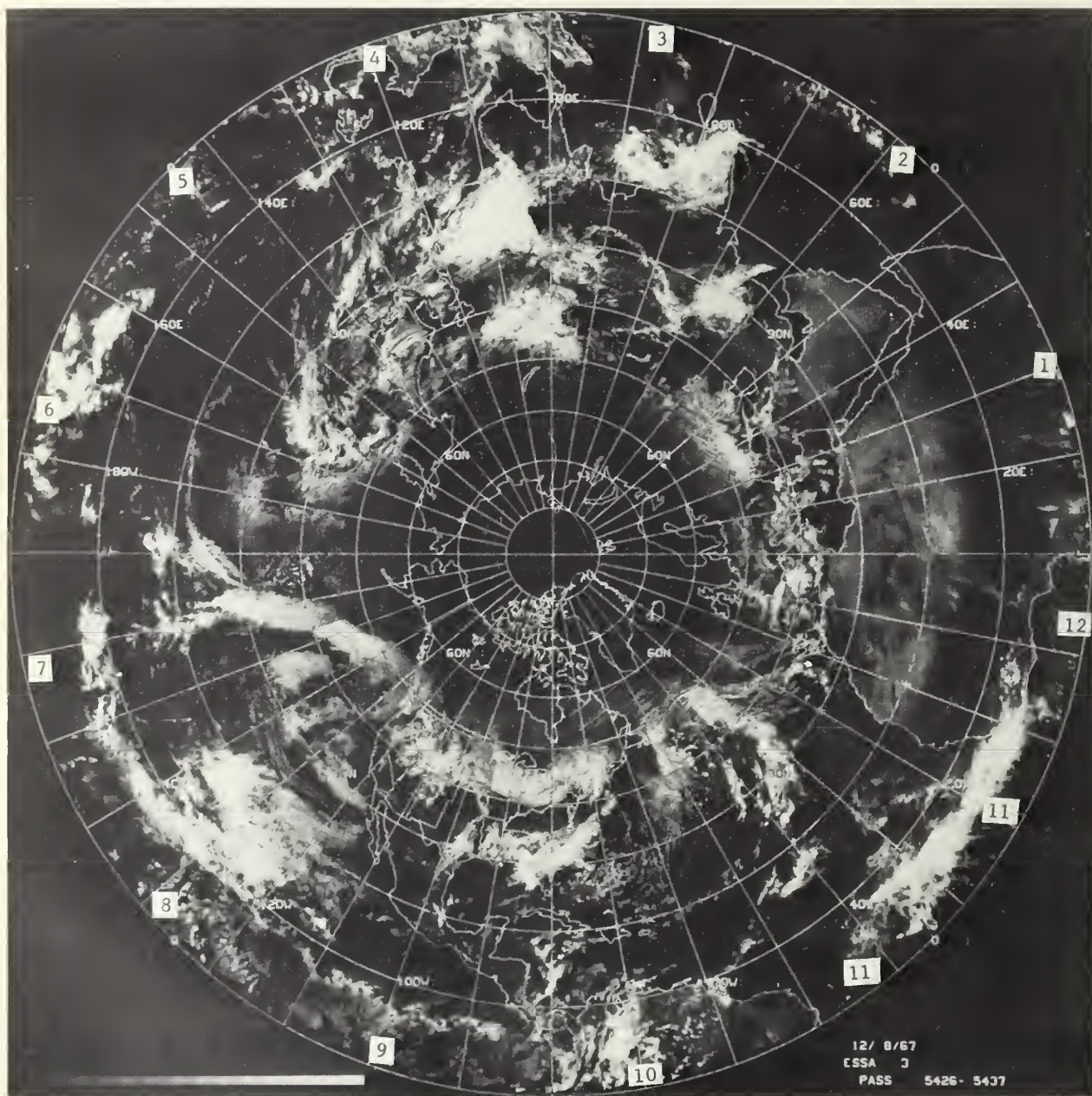


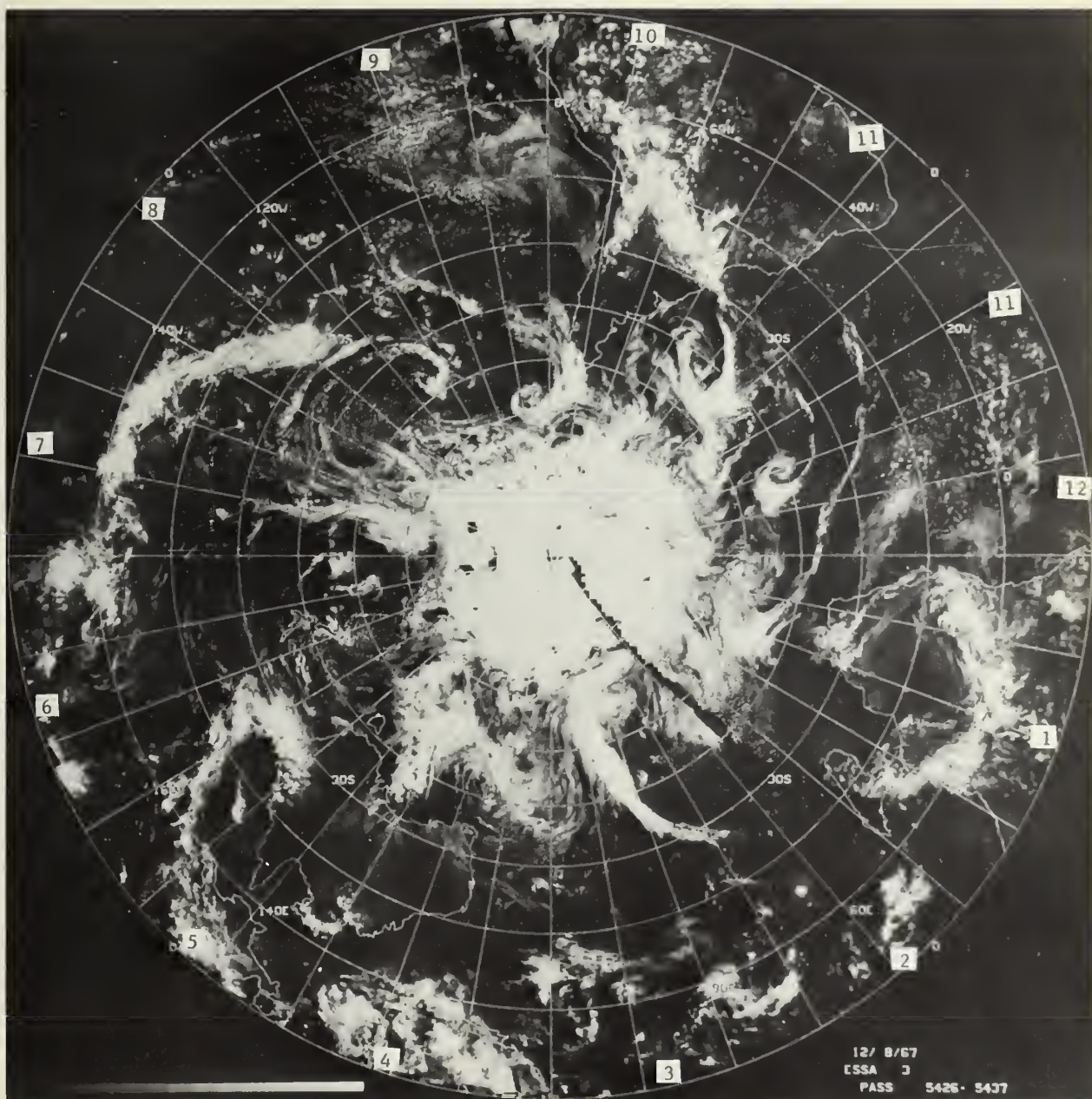




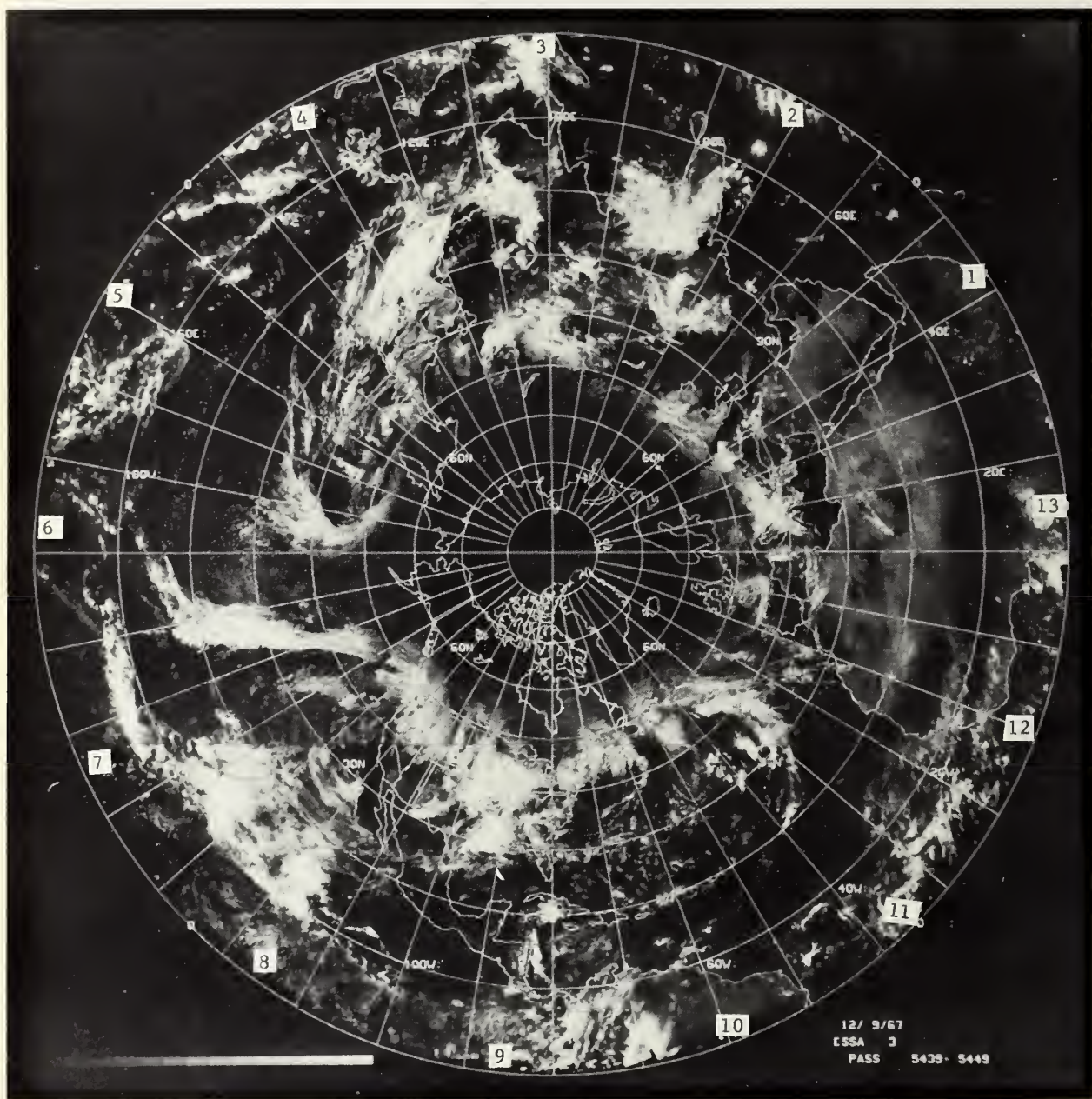


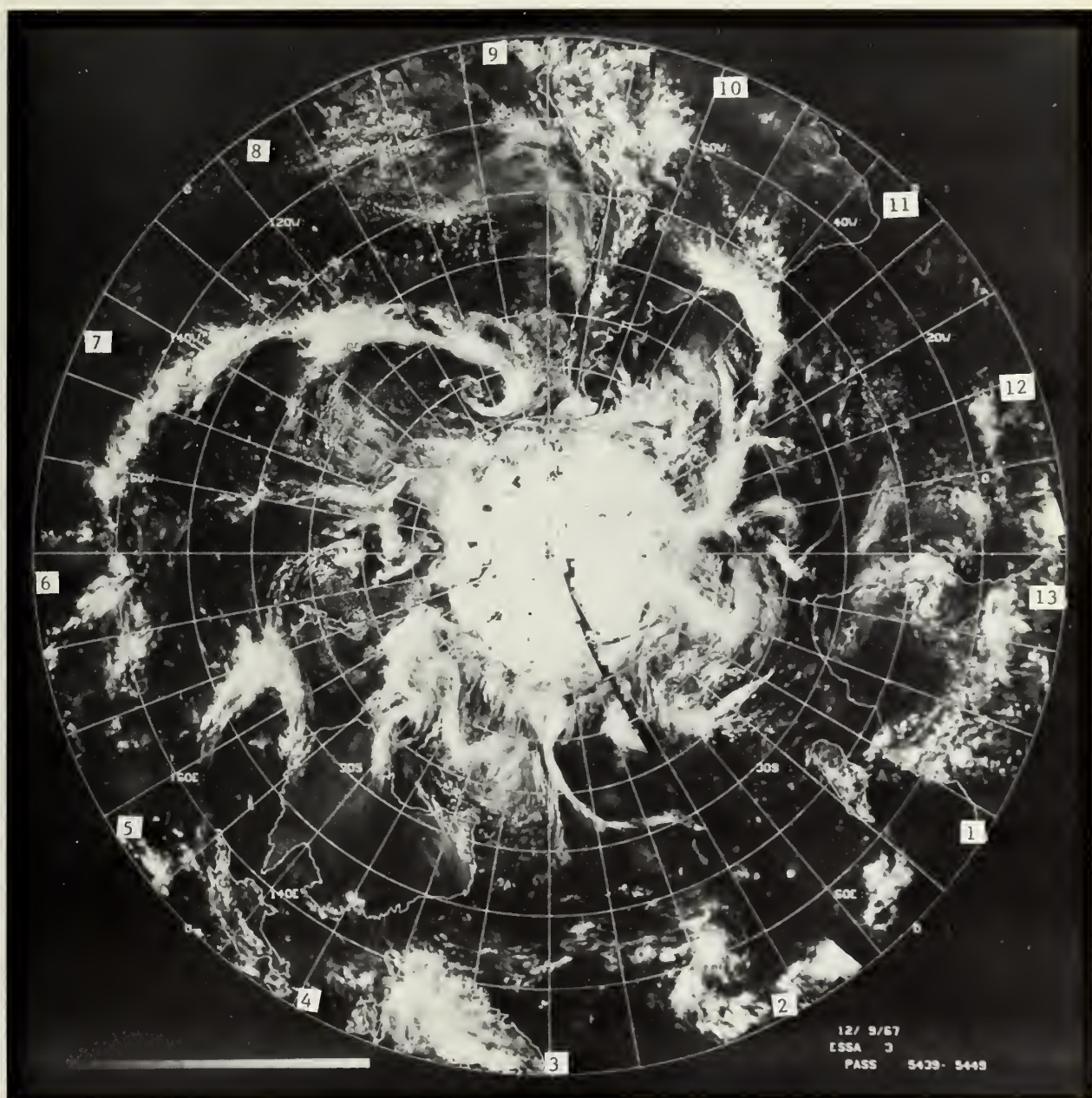




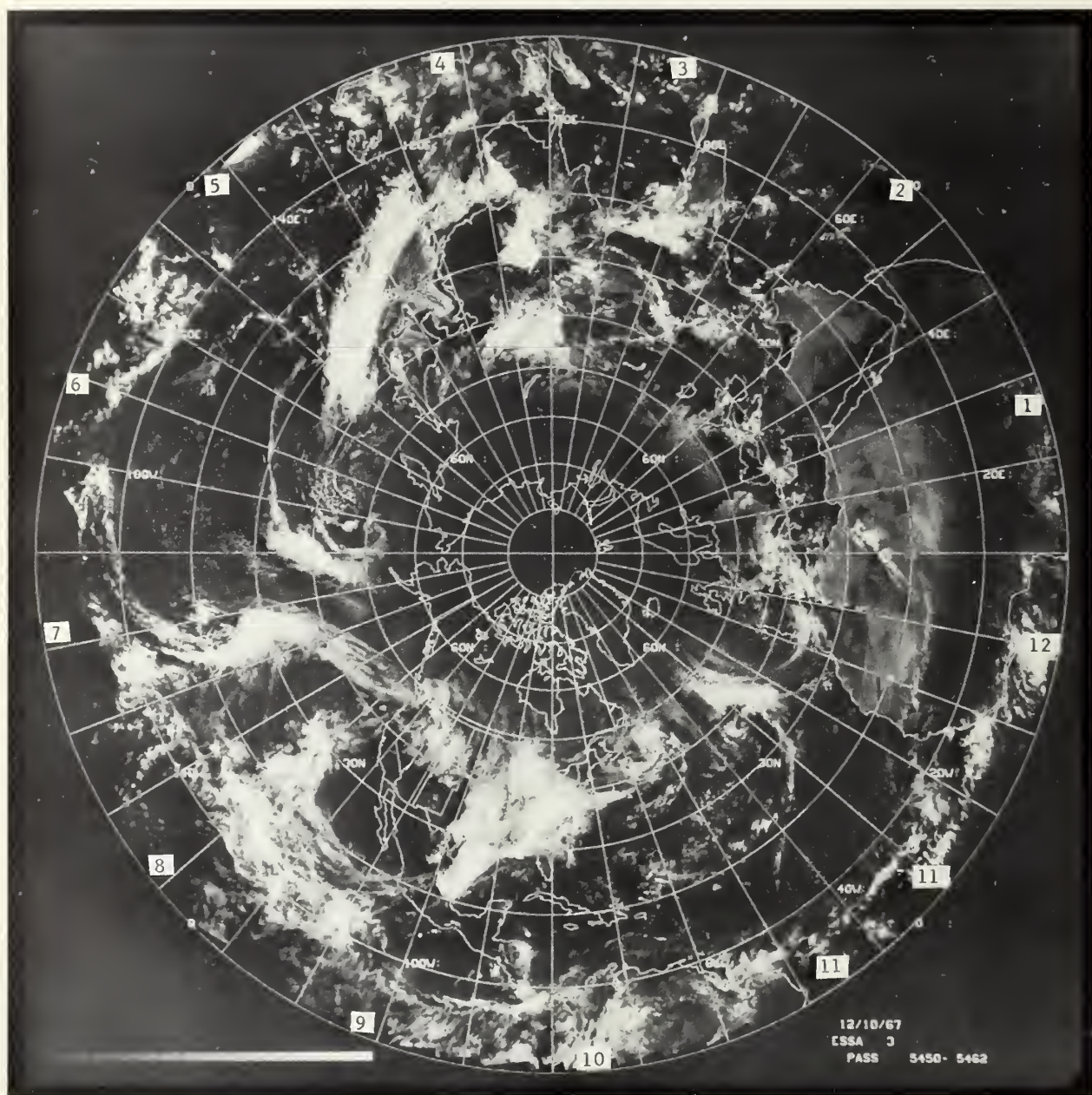


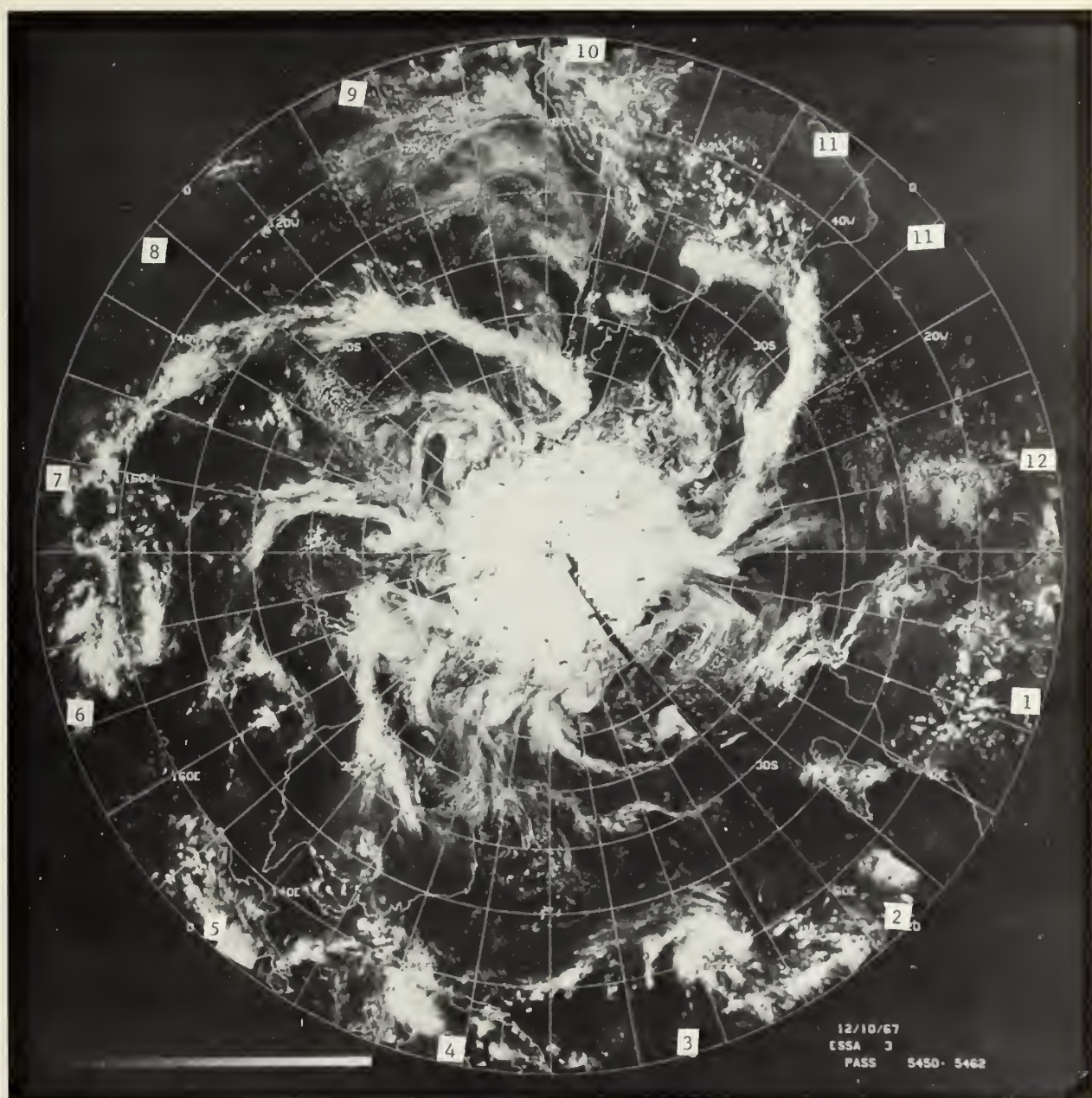




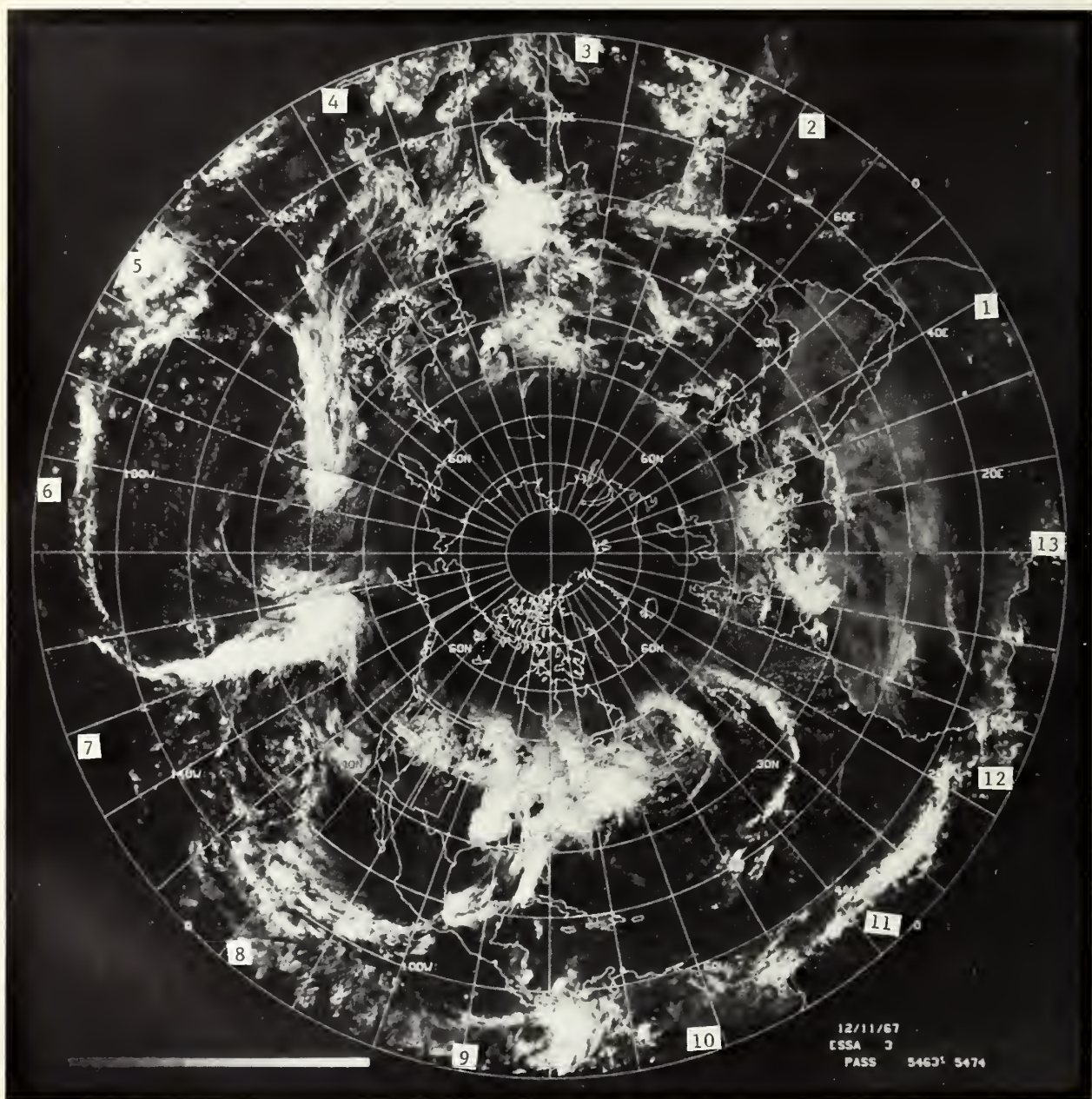


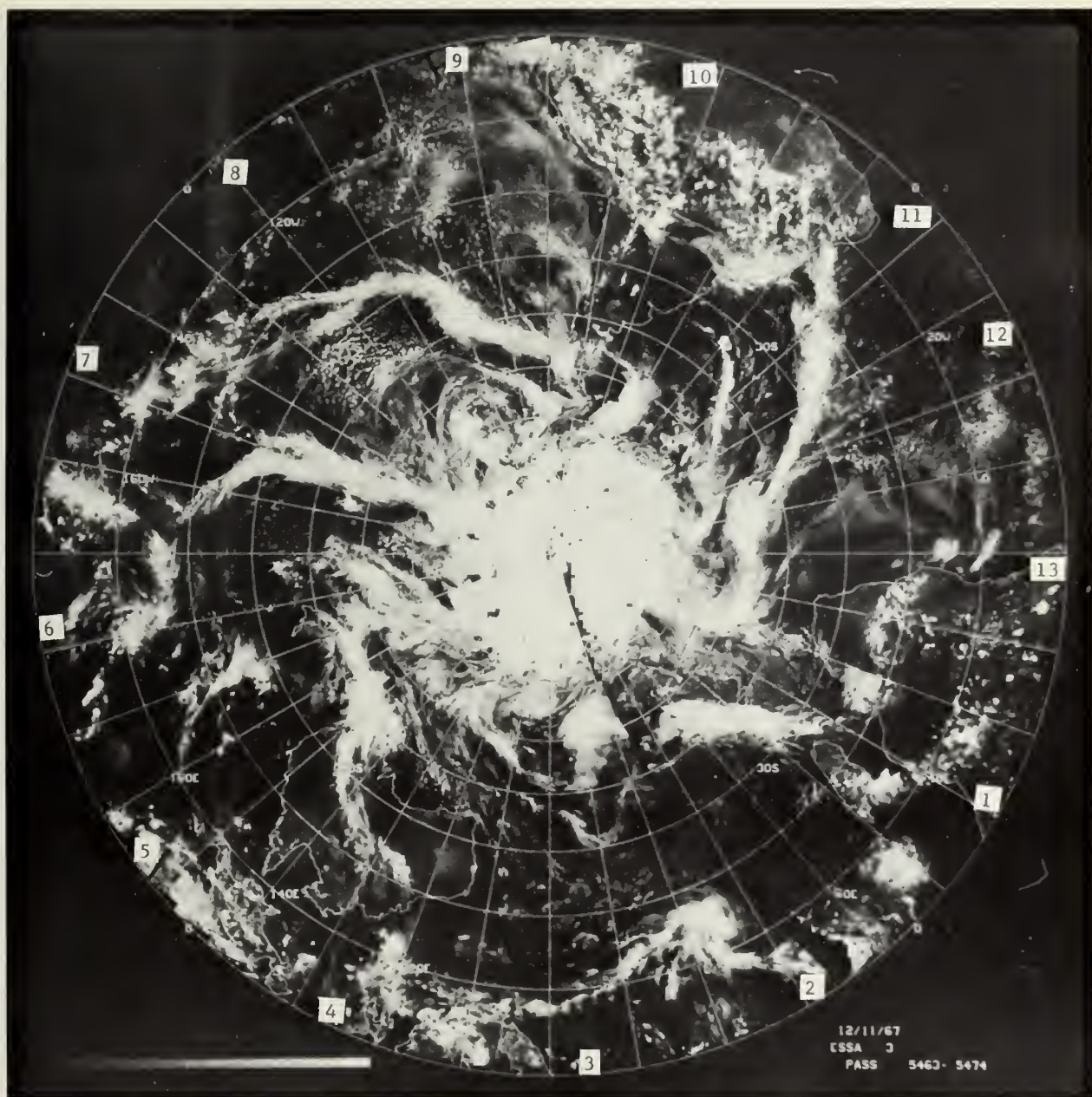




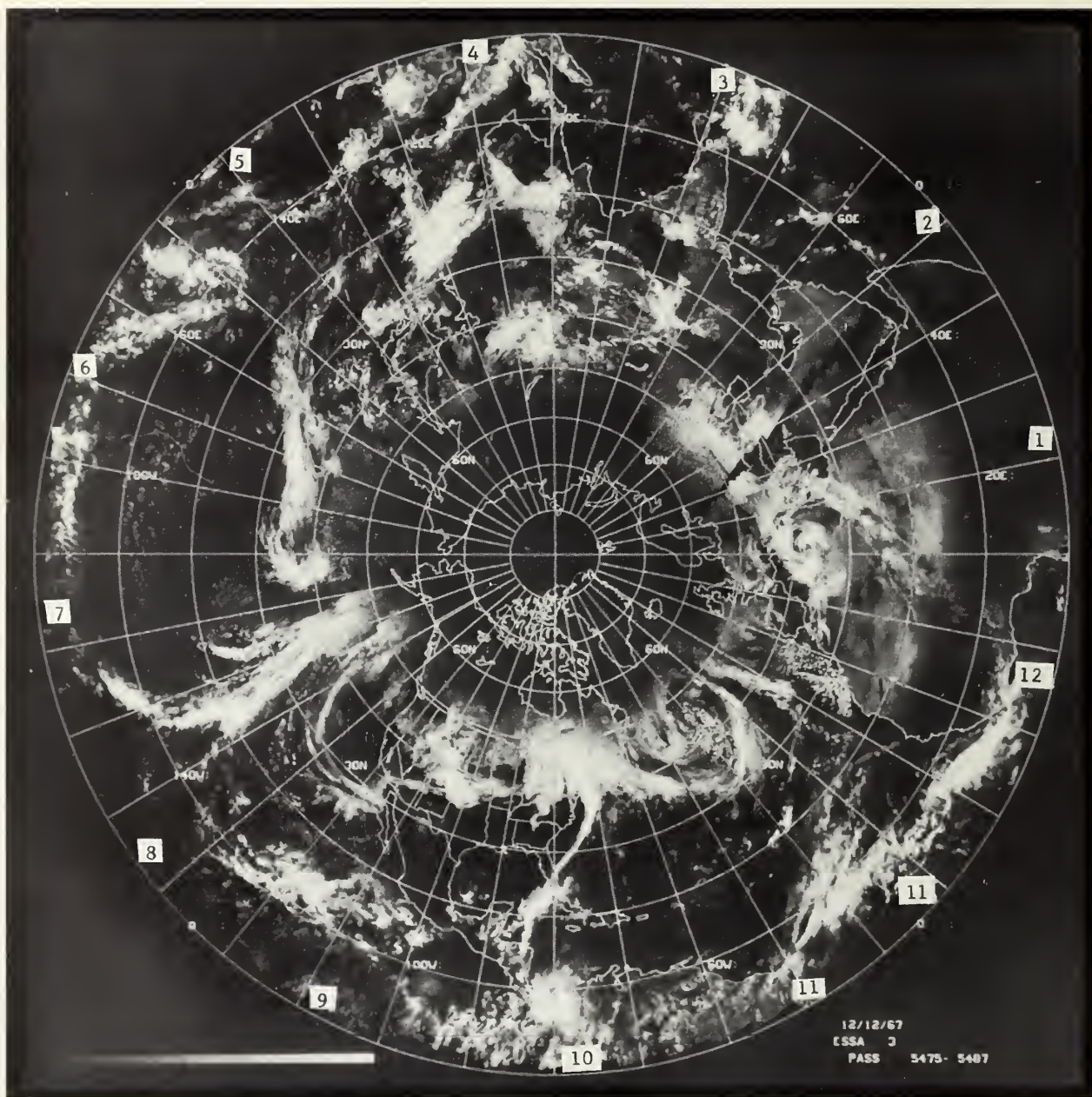


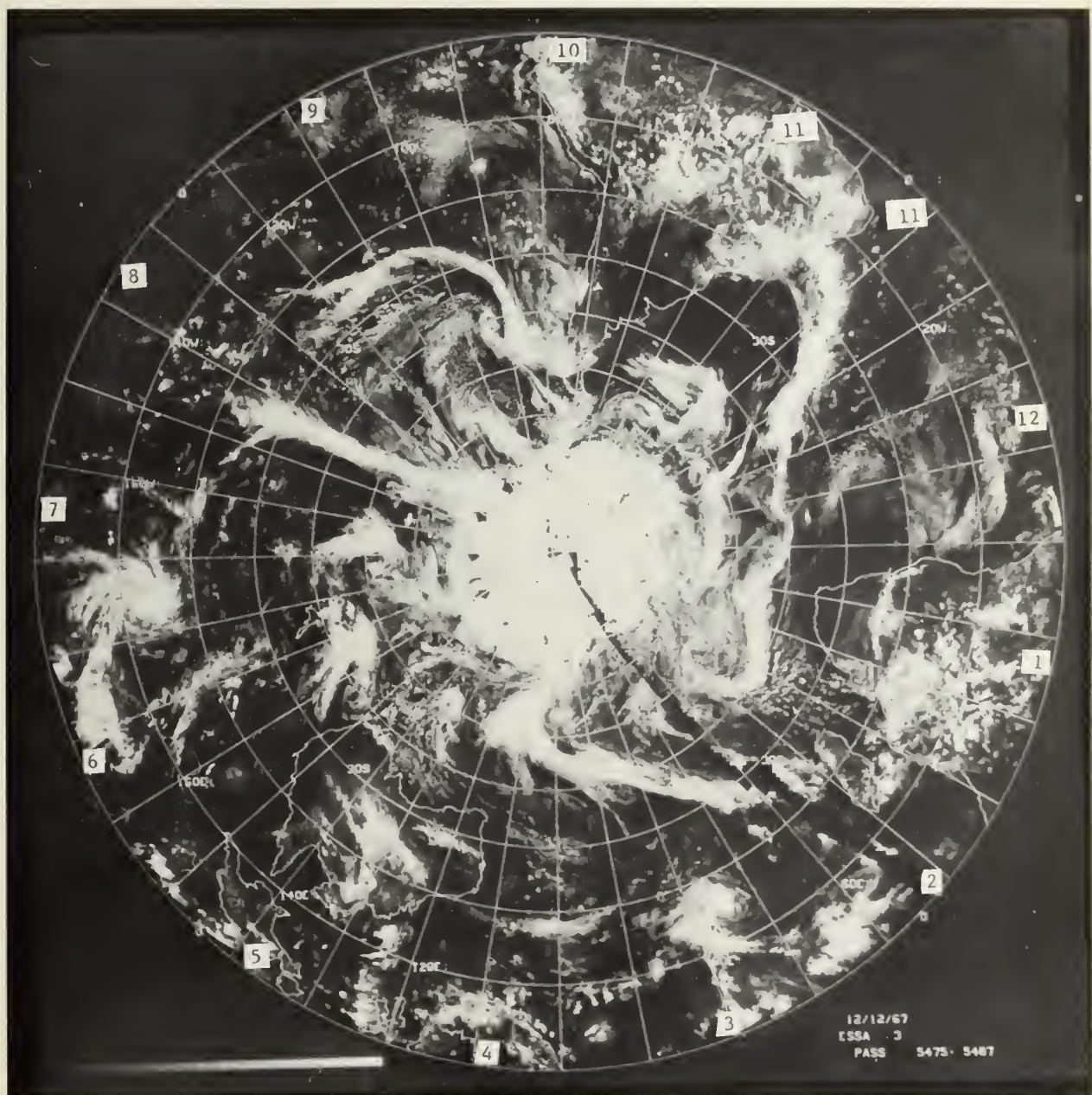




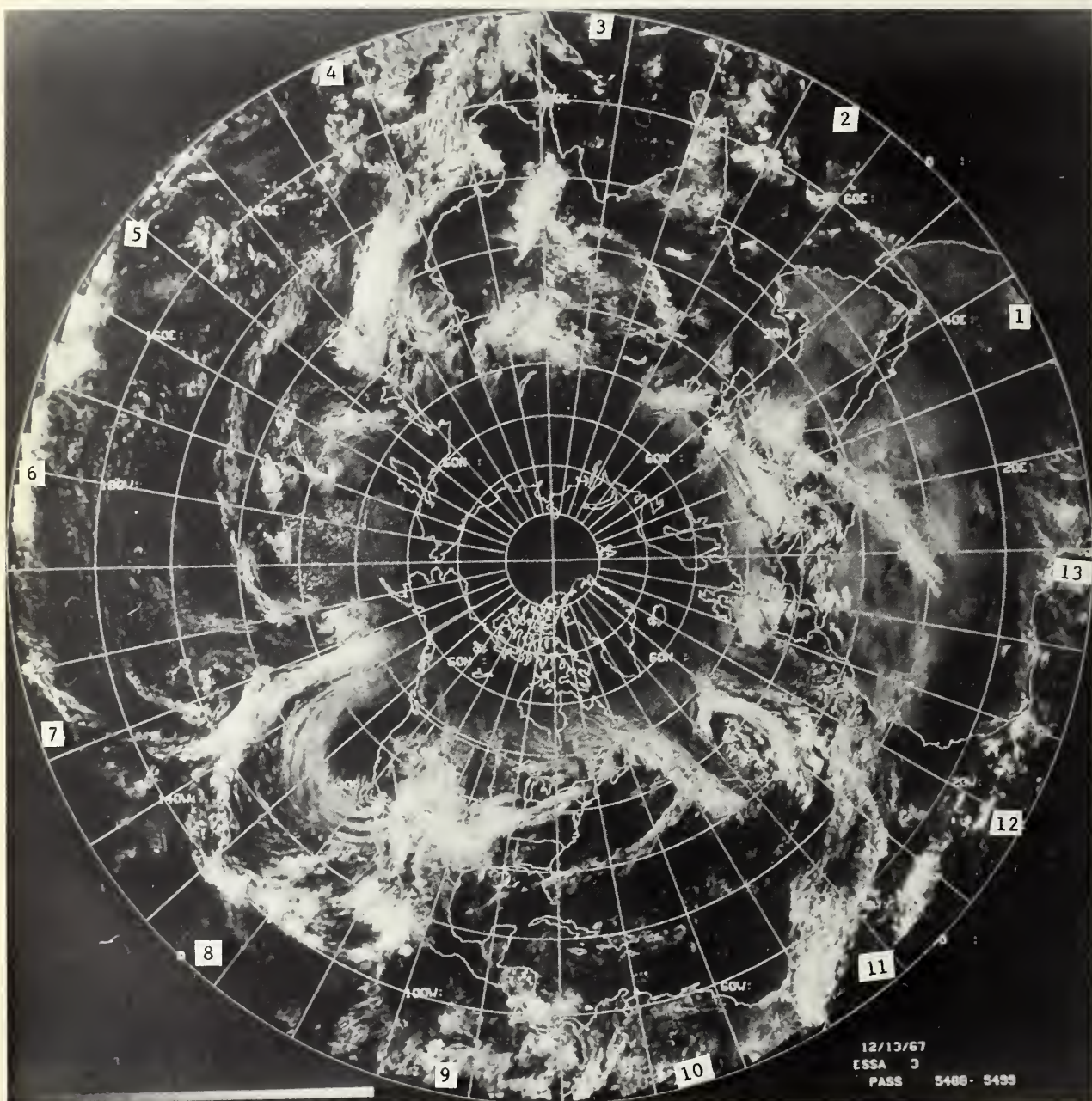




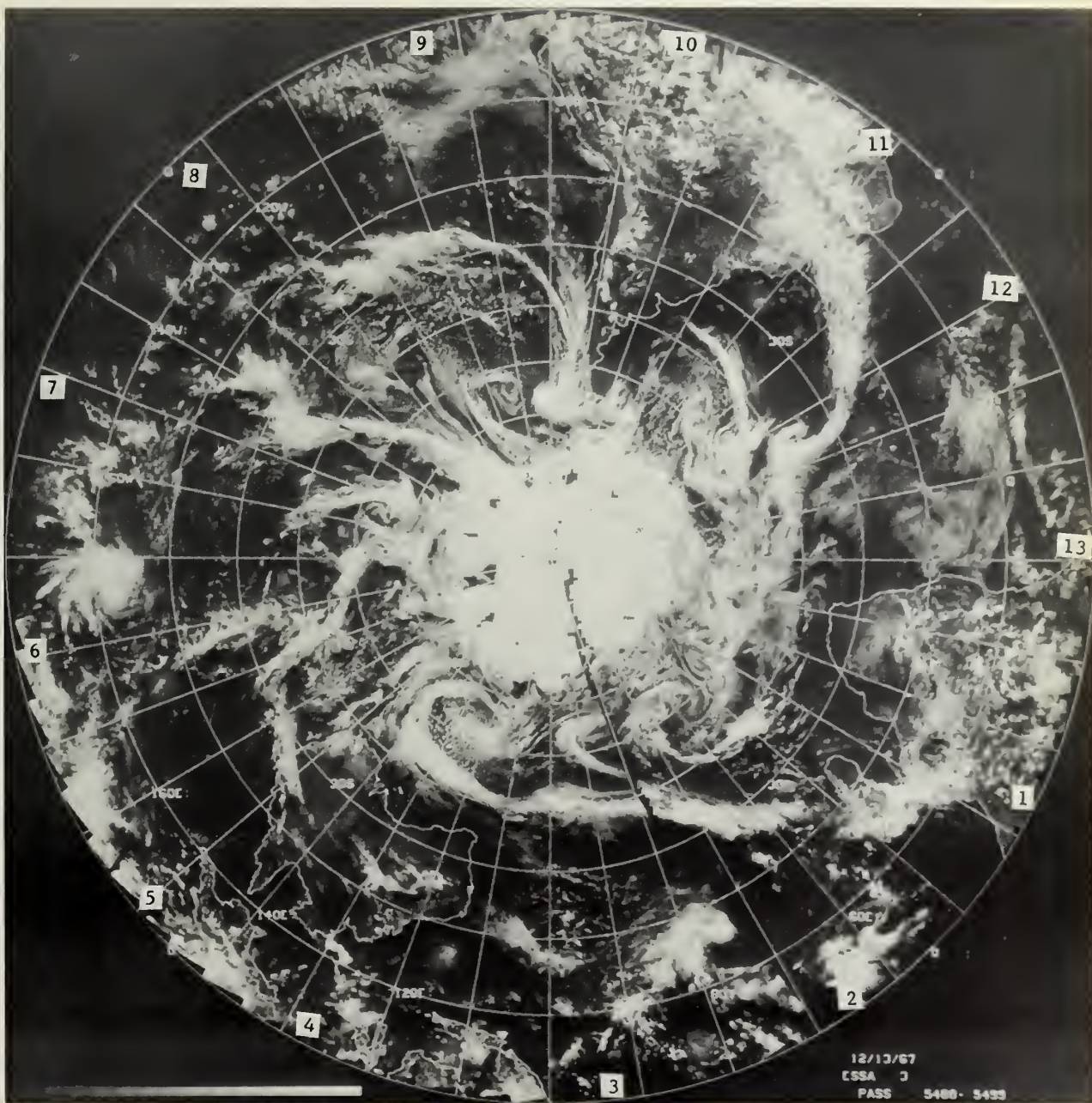




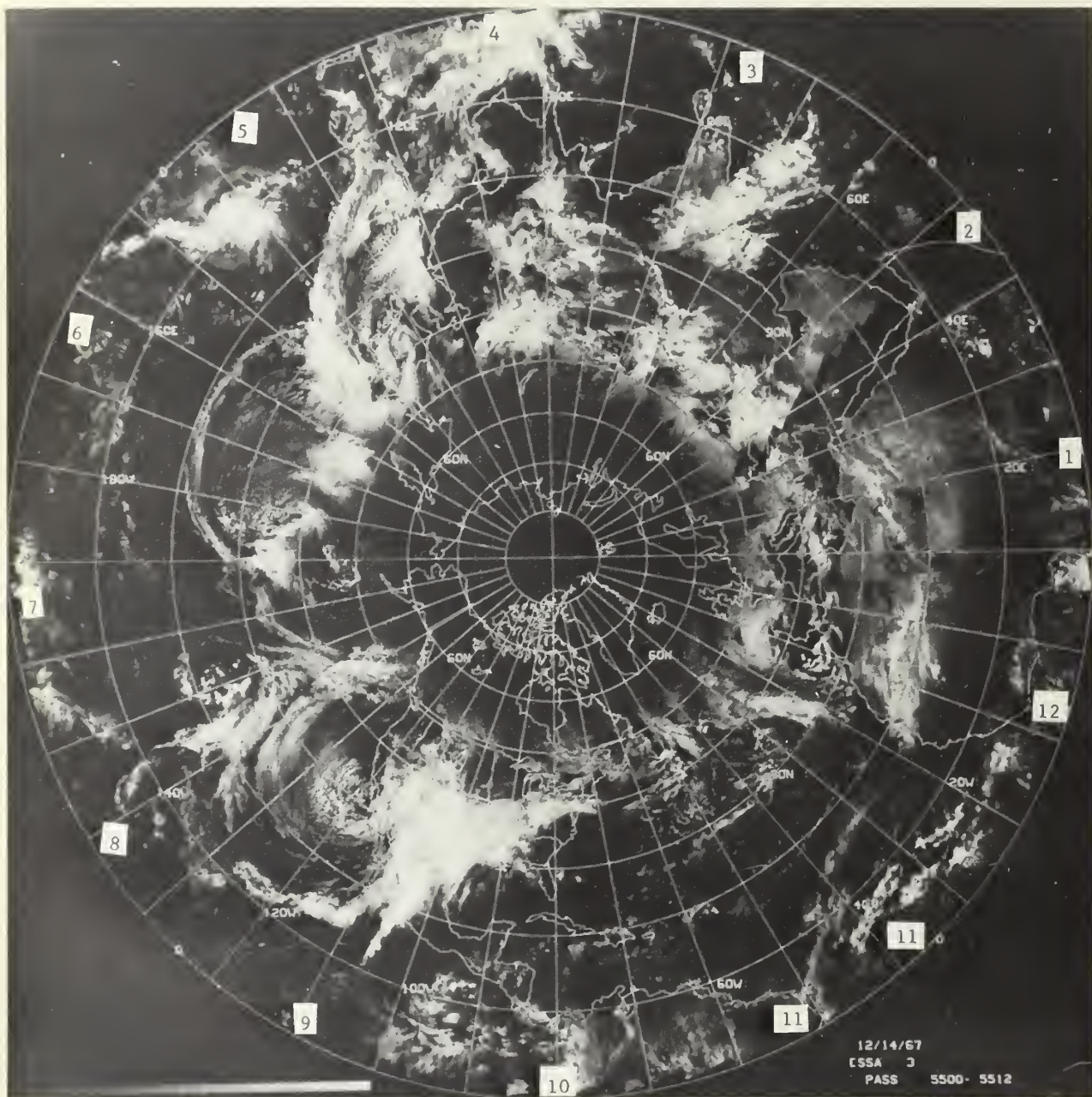


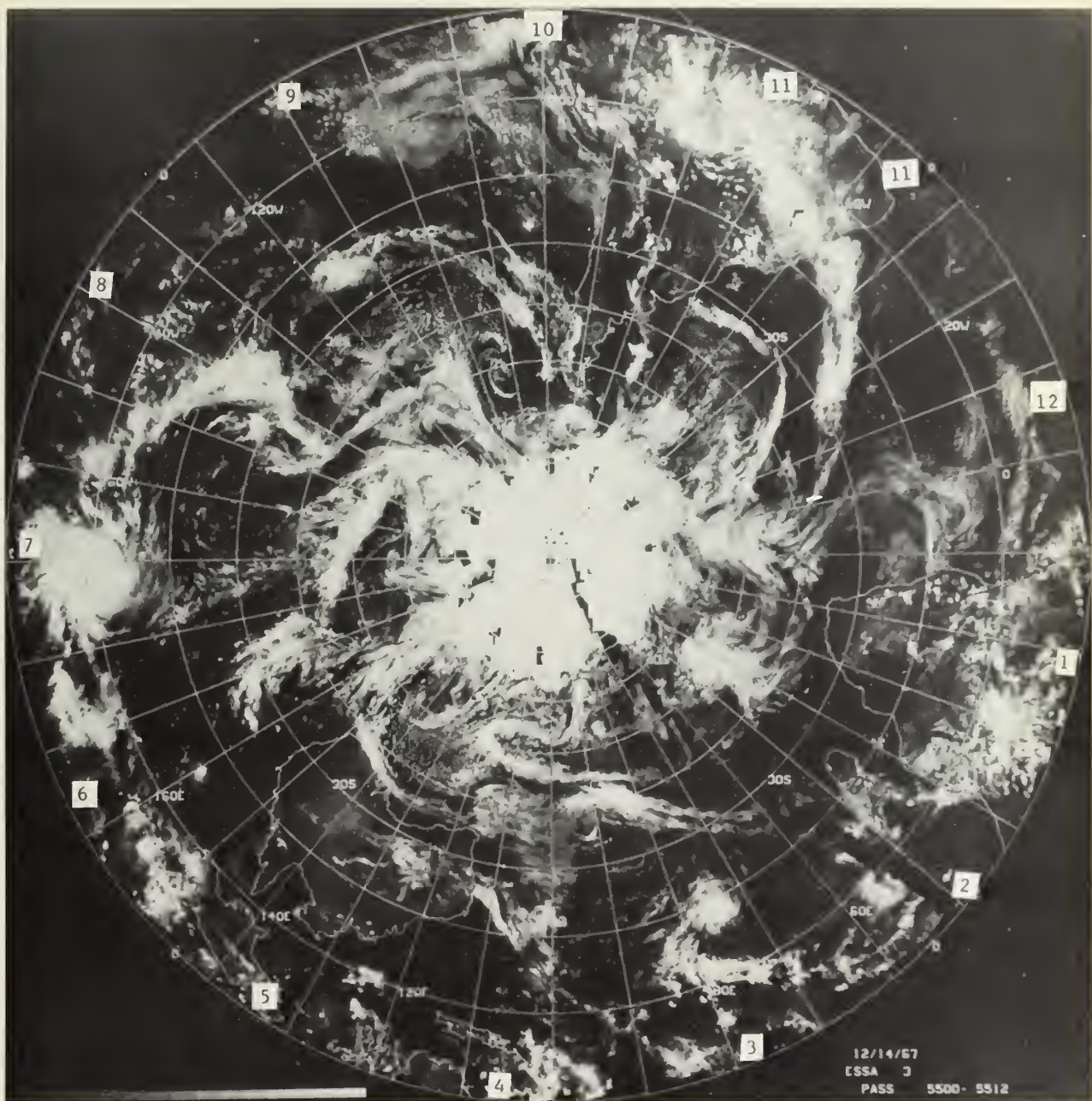




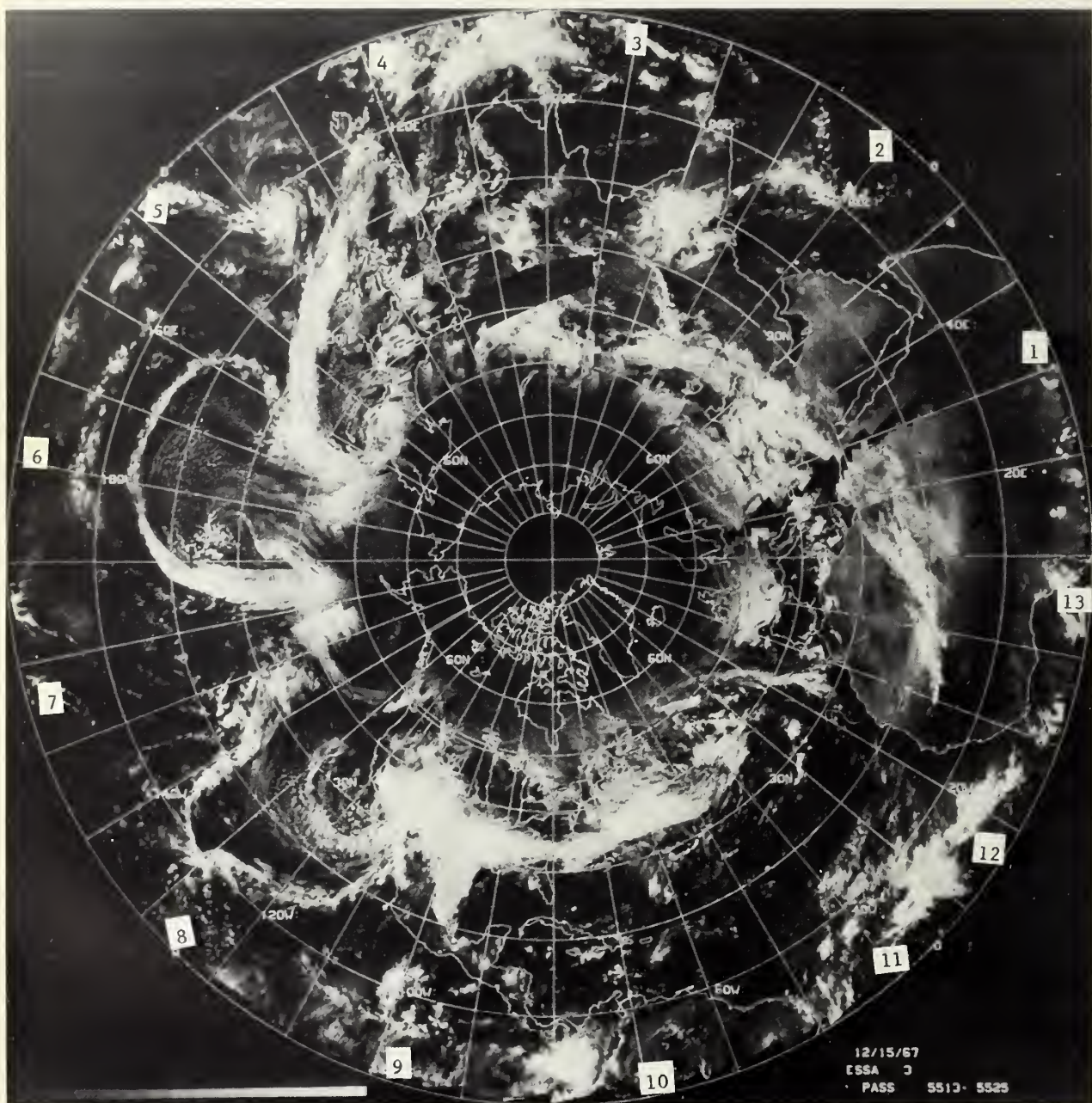




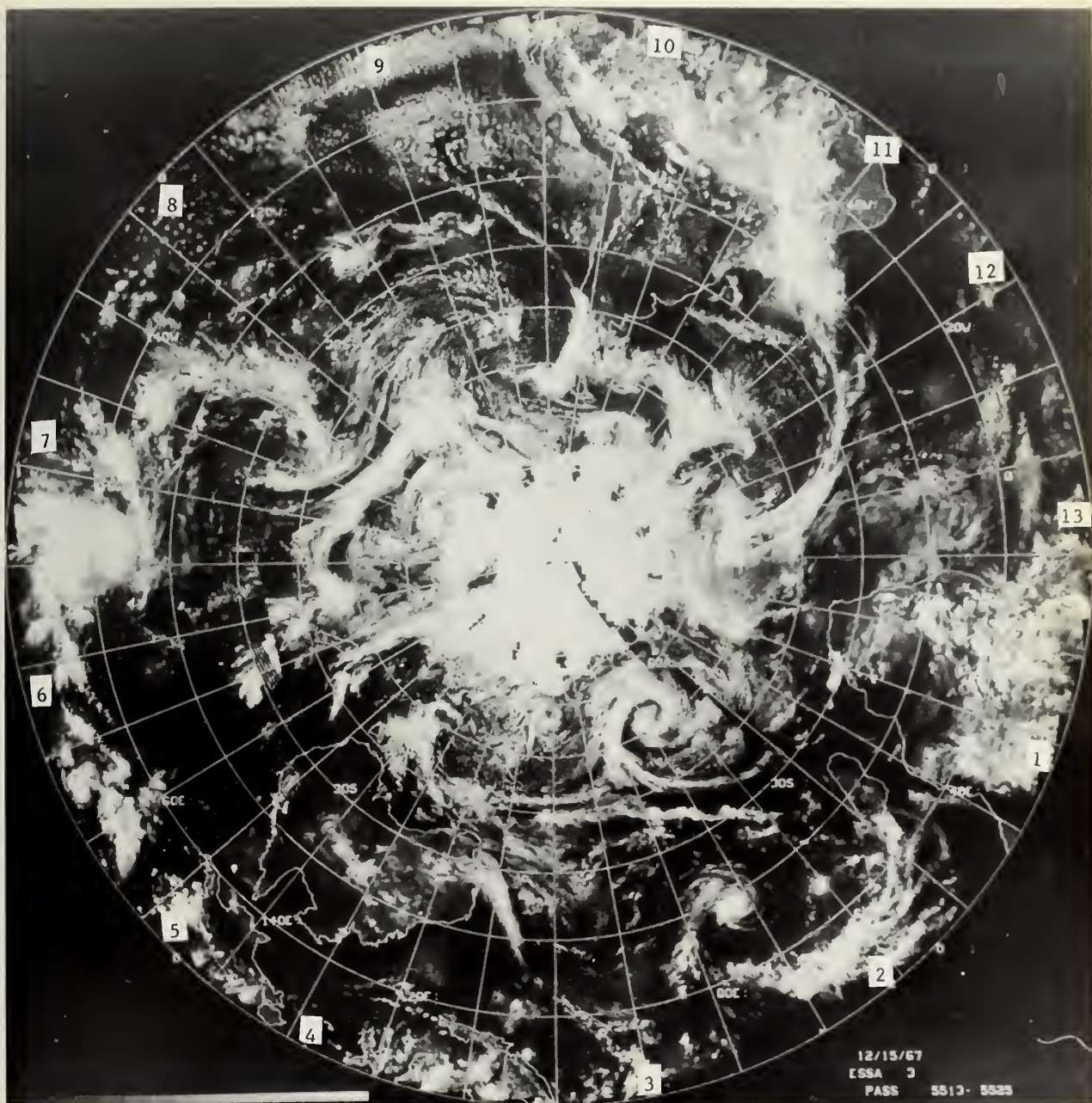




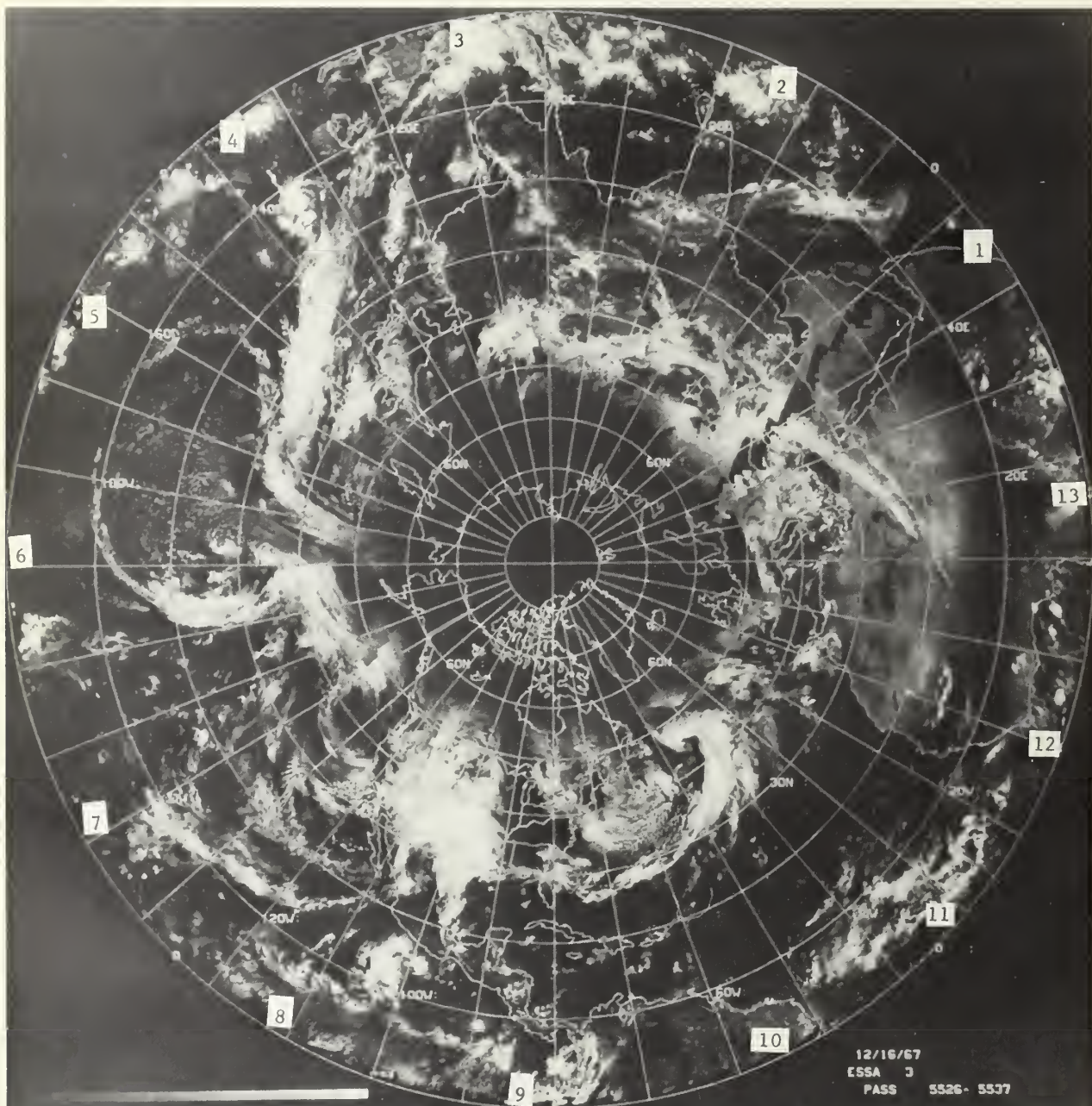






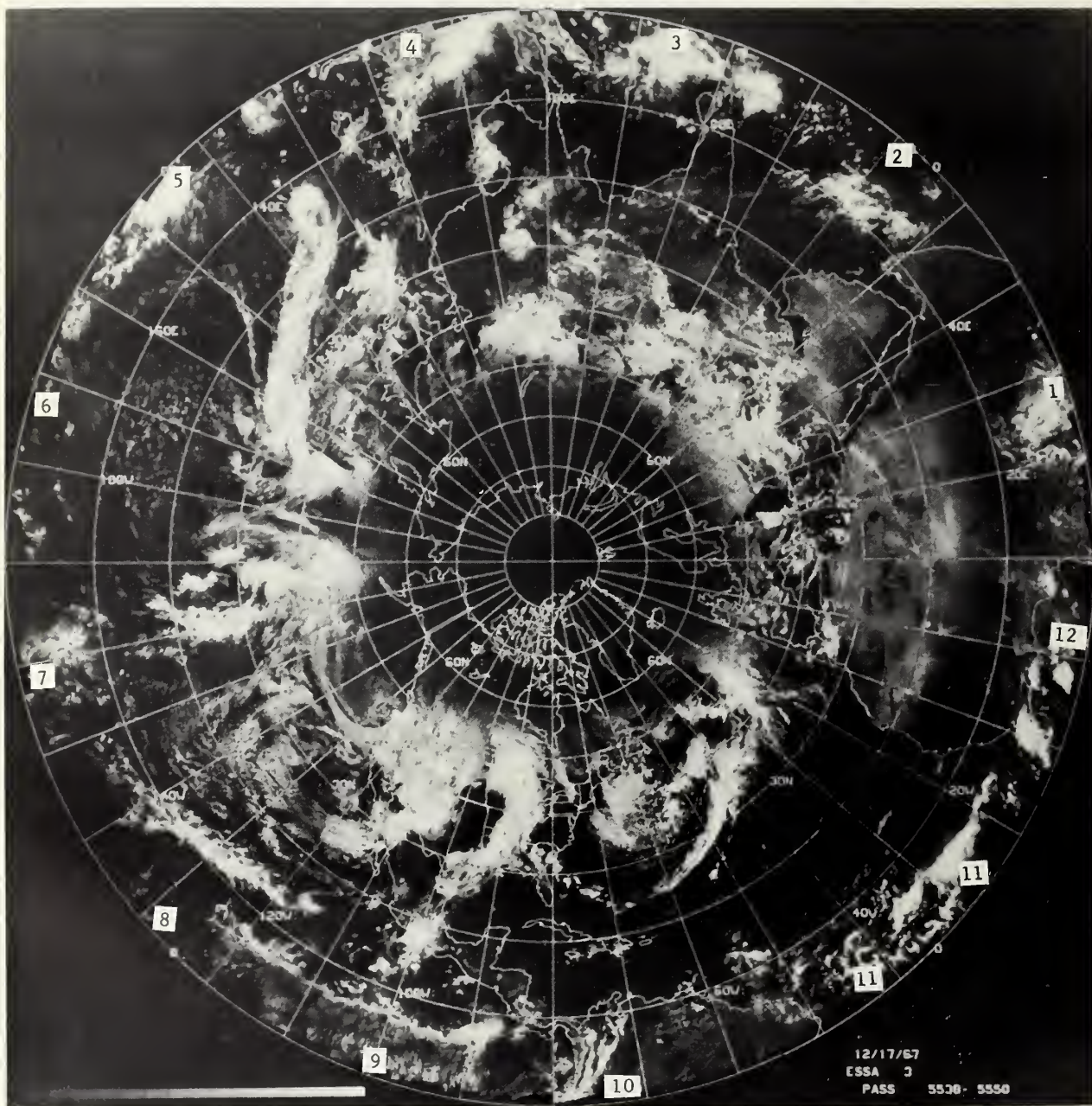


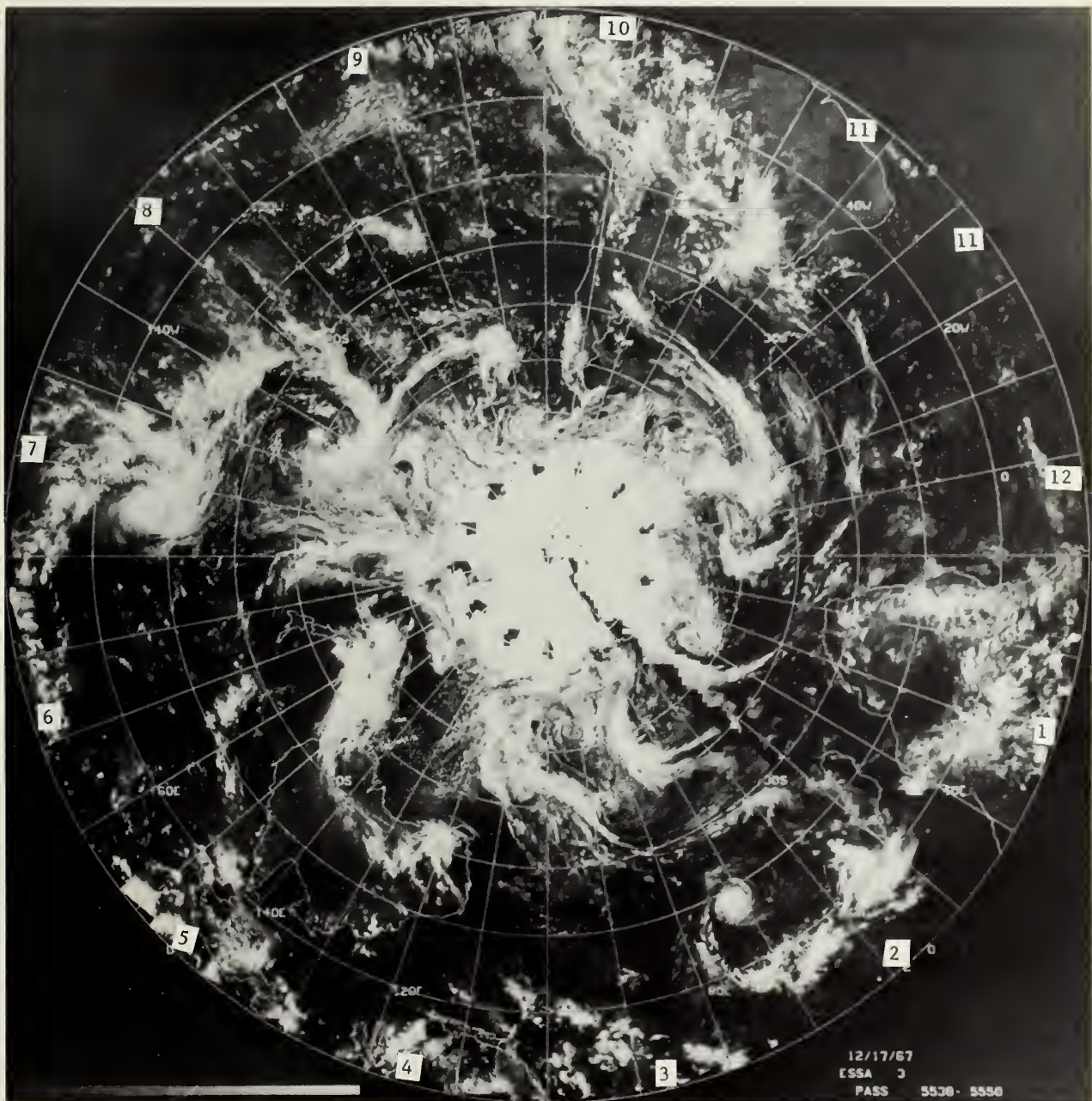




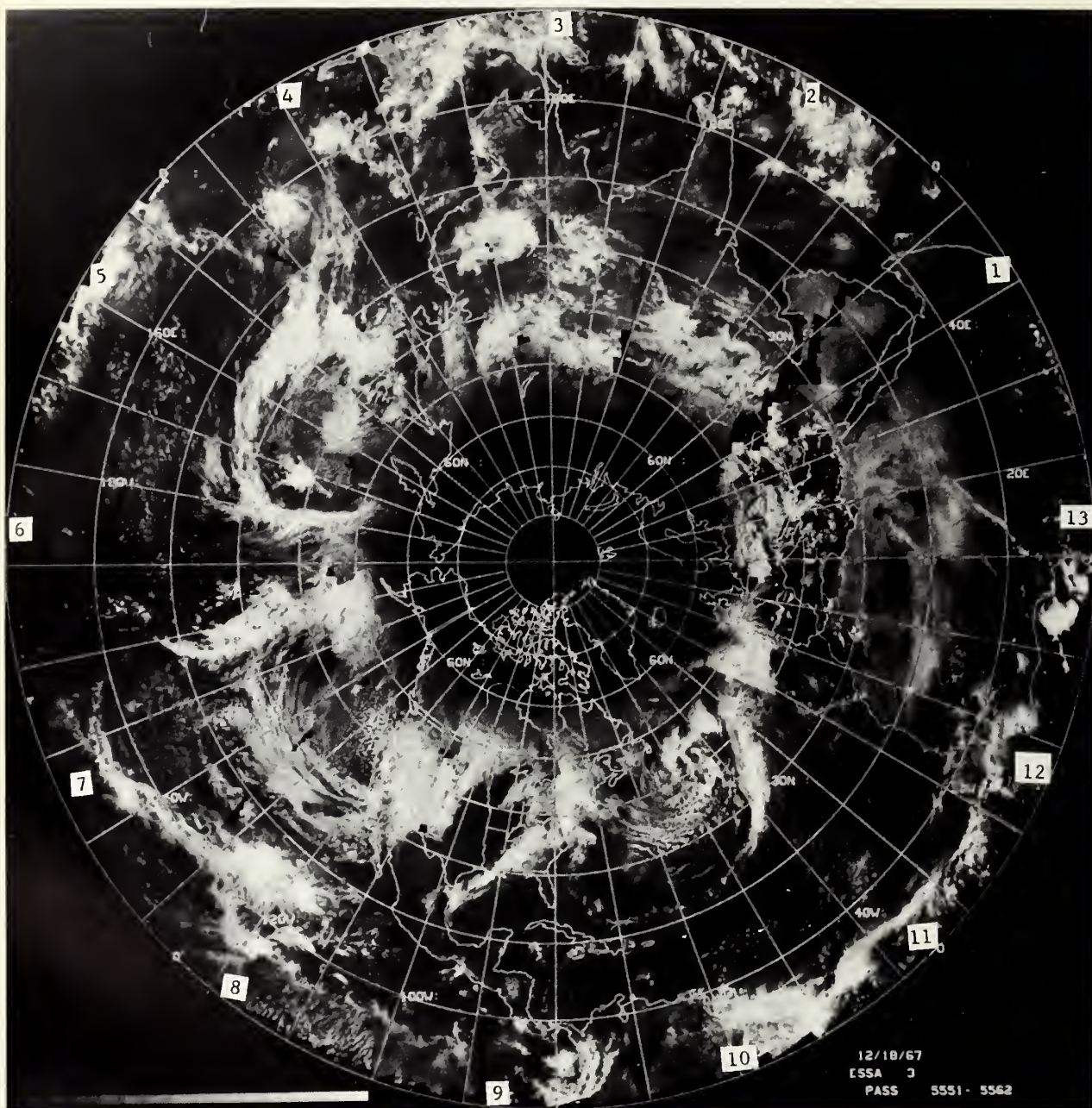


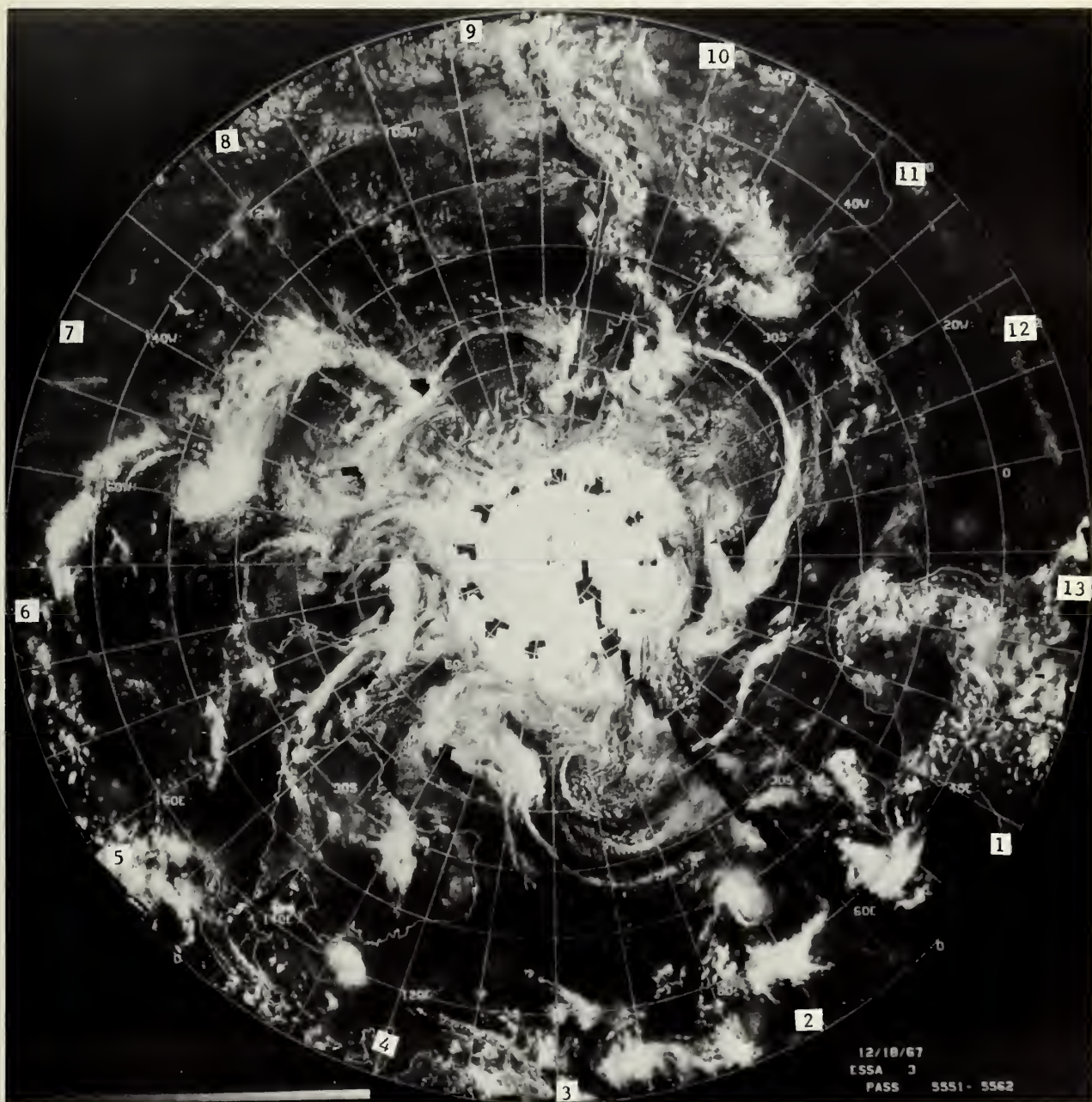




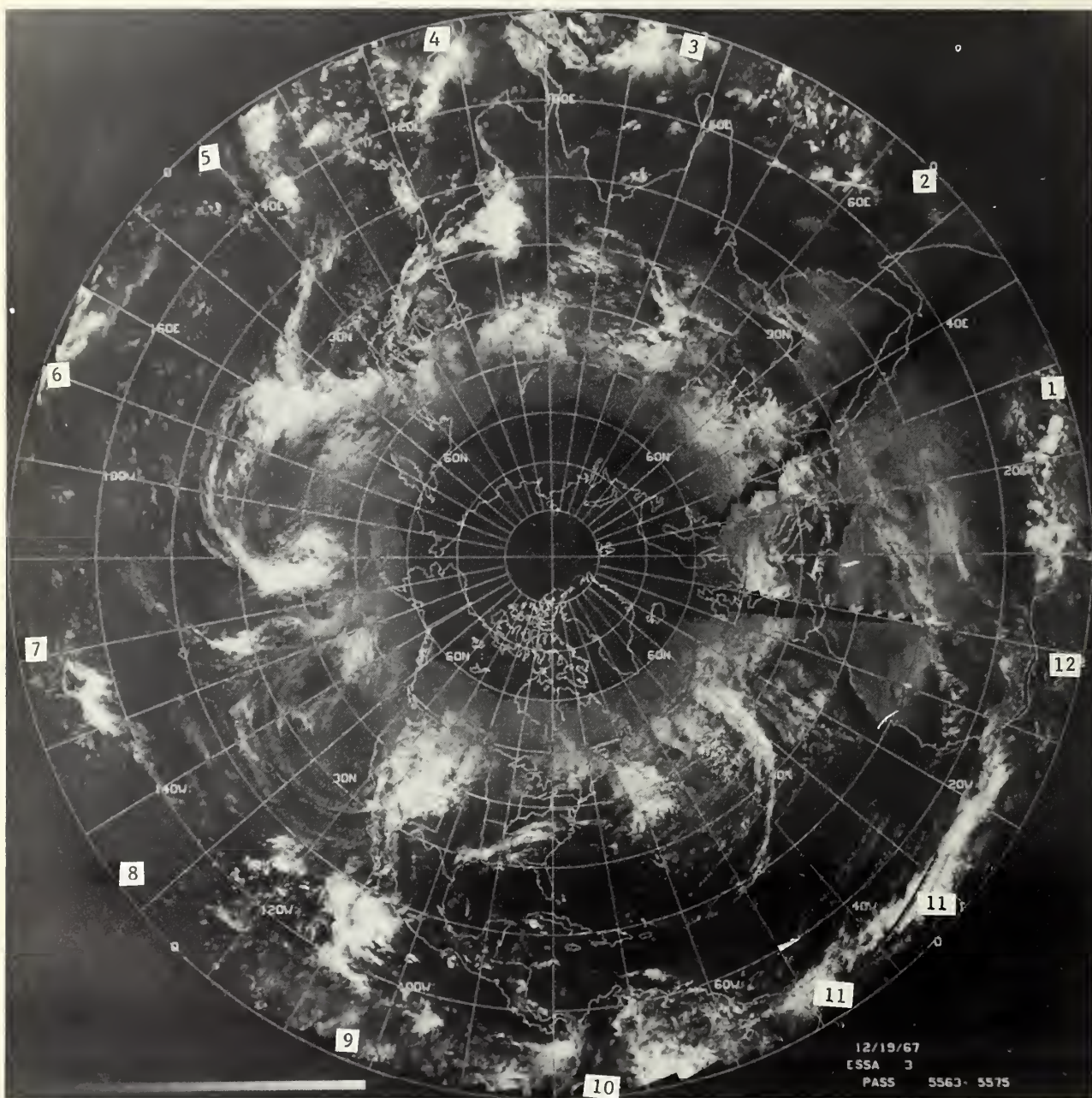


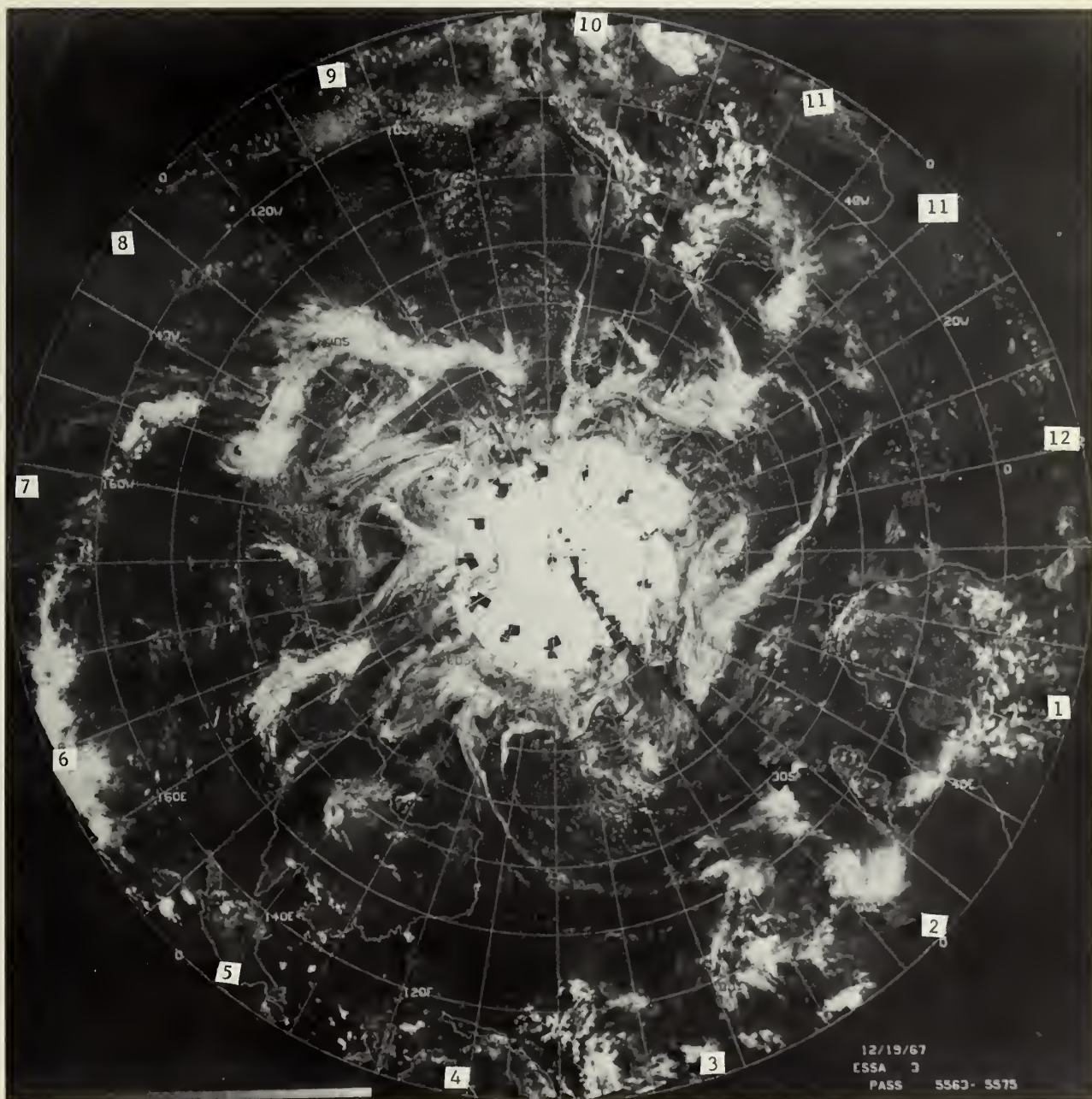






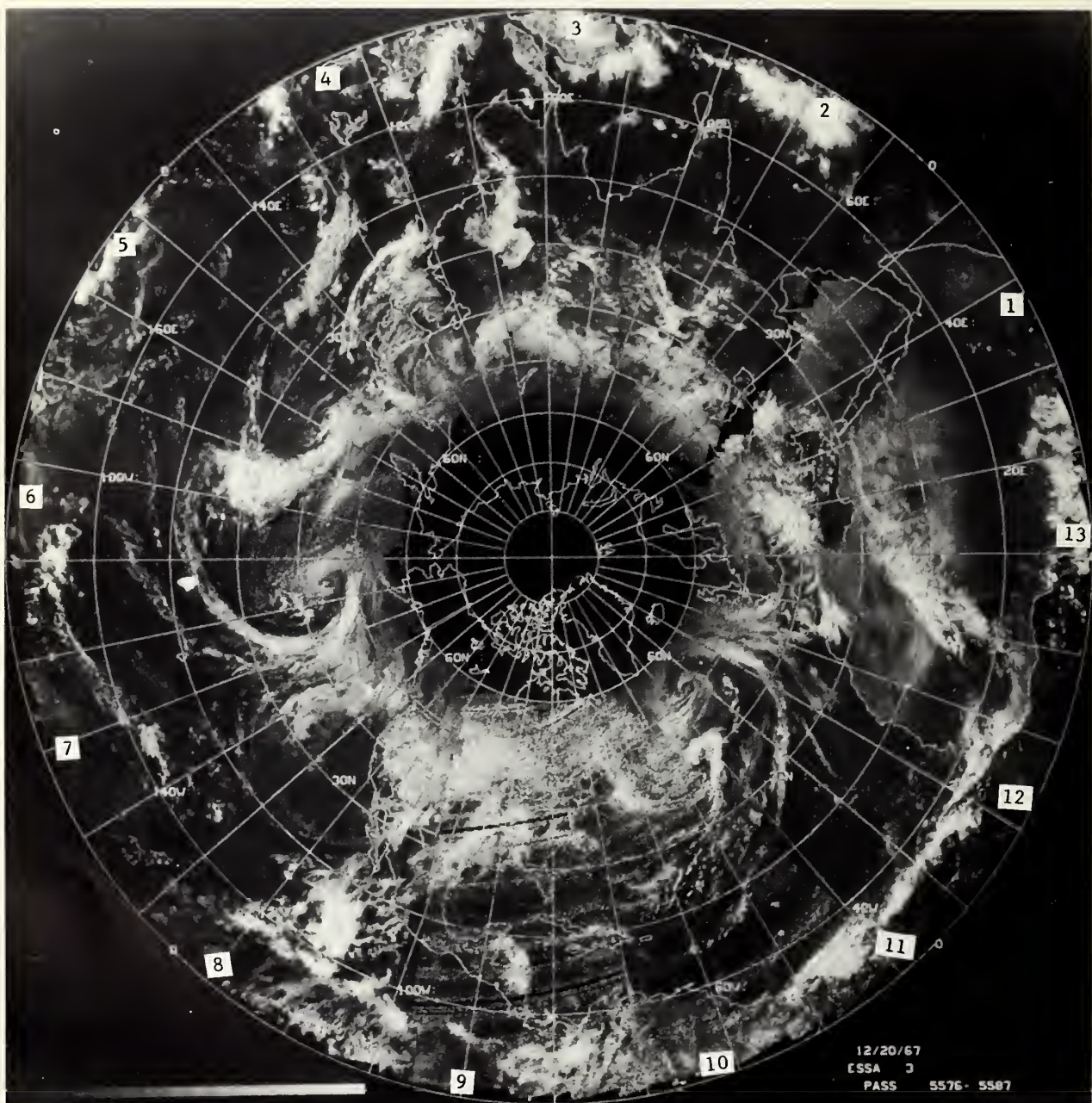


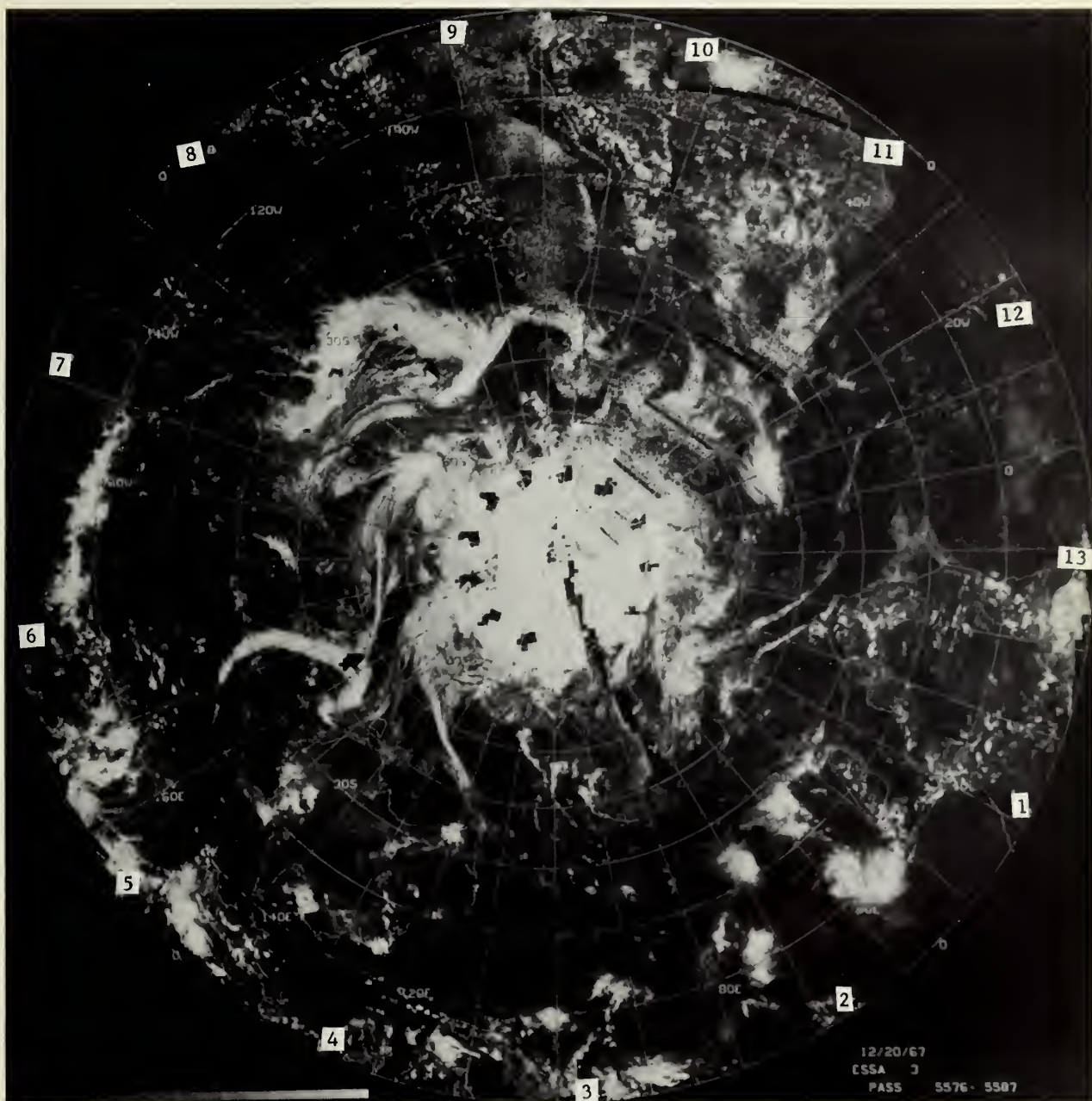




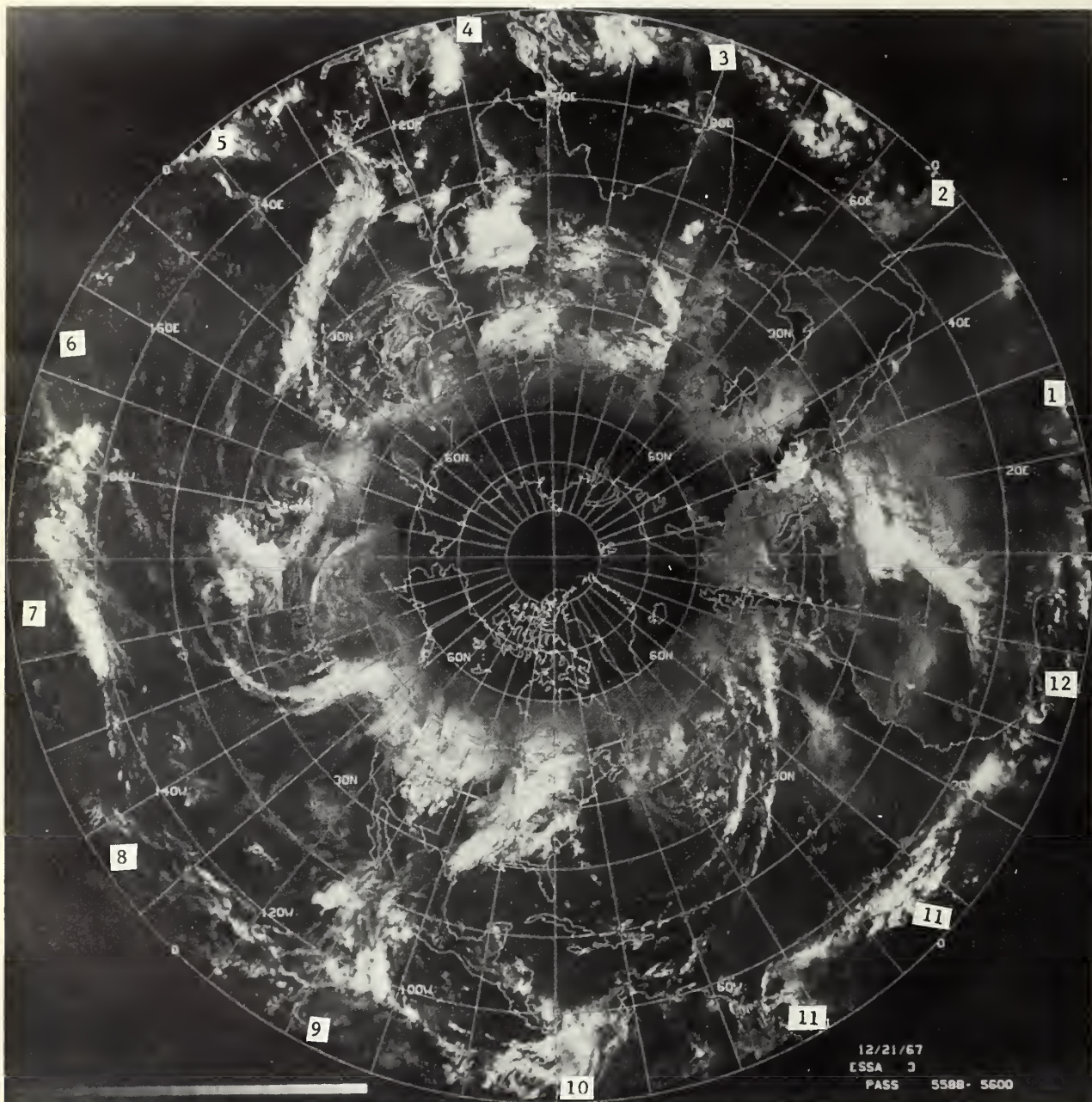
12/19/67  
ESSA 3  
PASS 5563- 5575

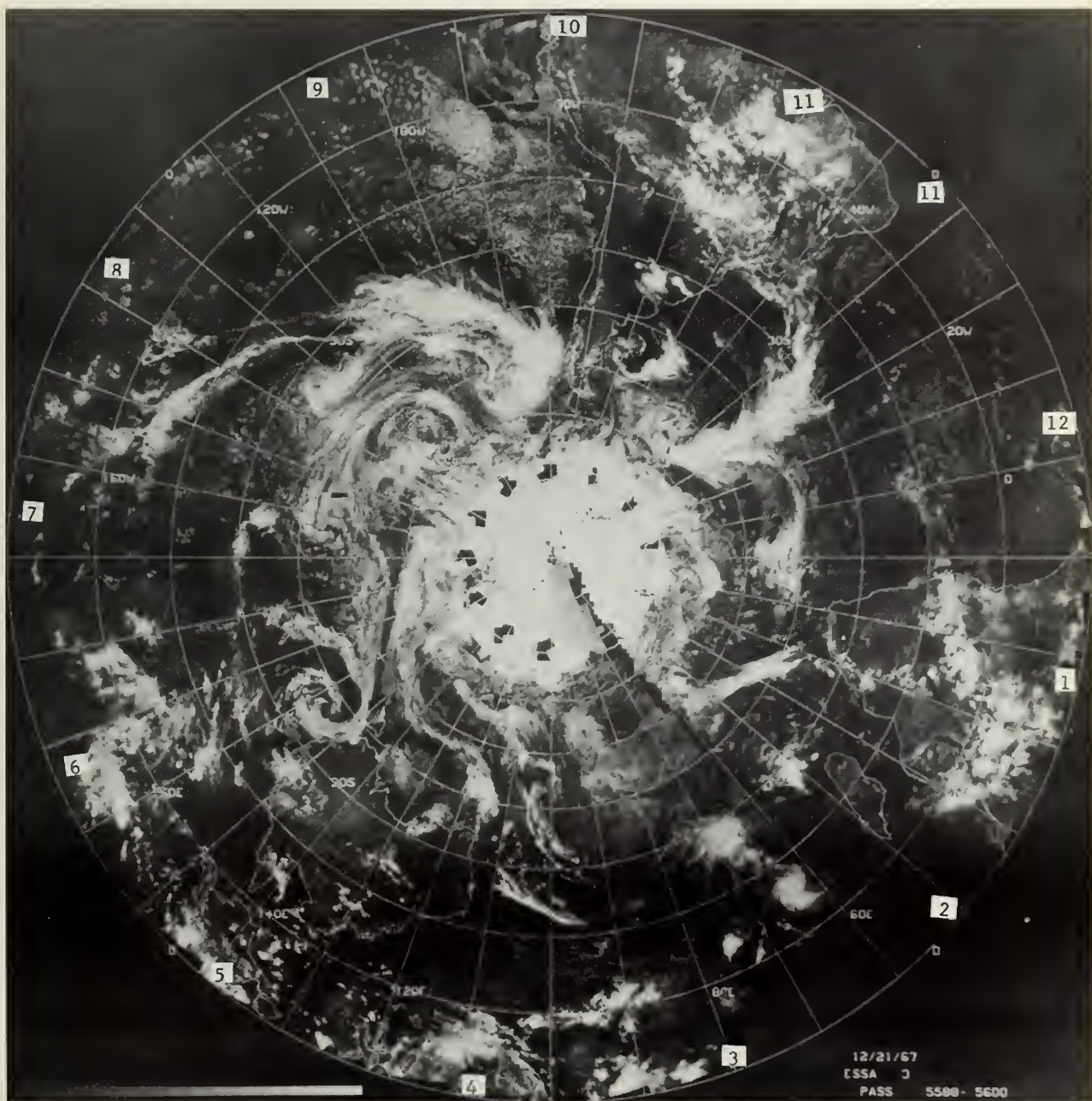




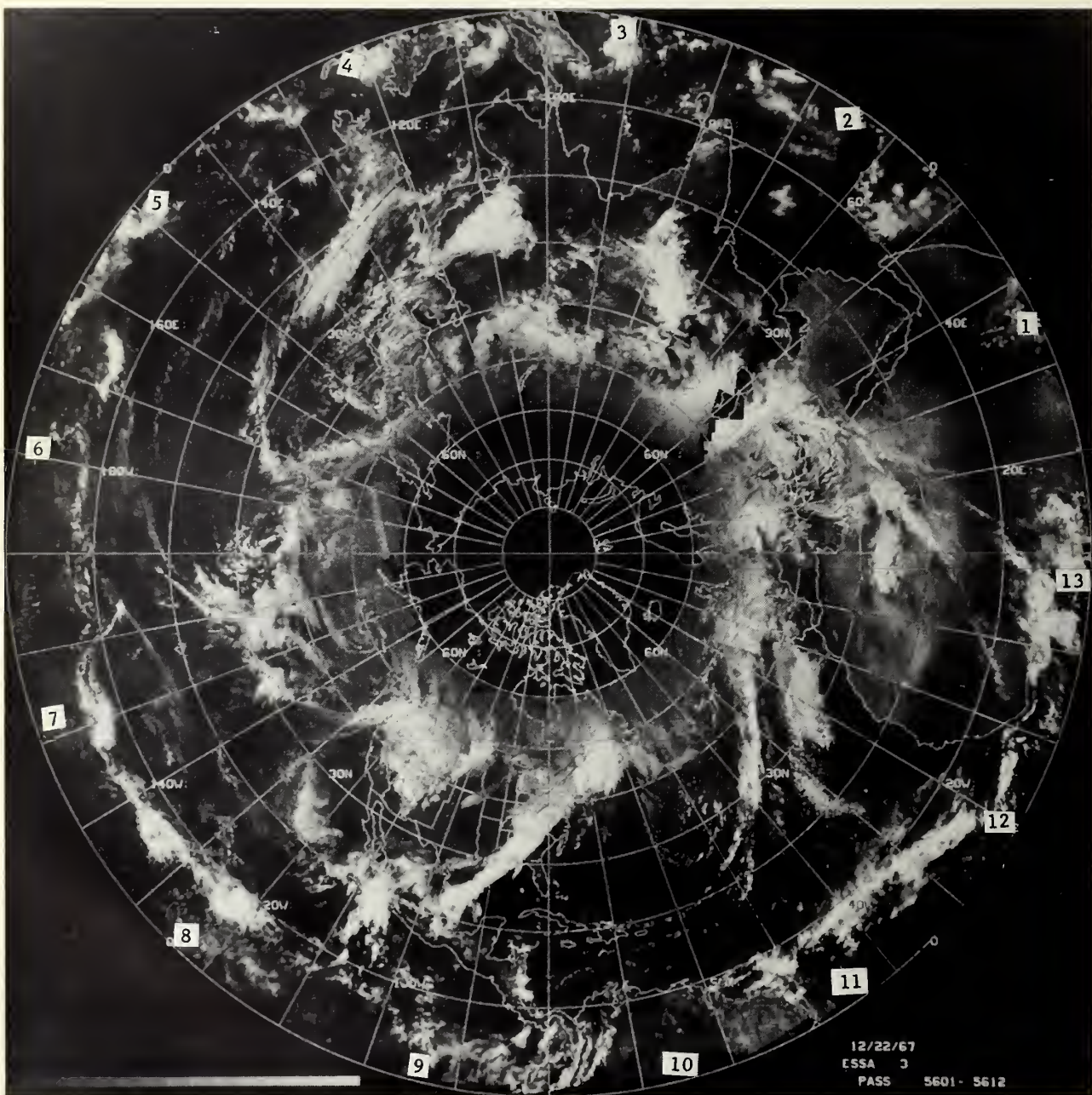




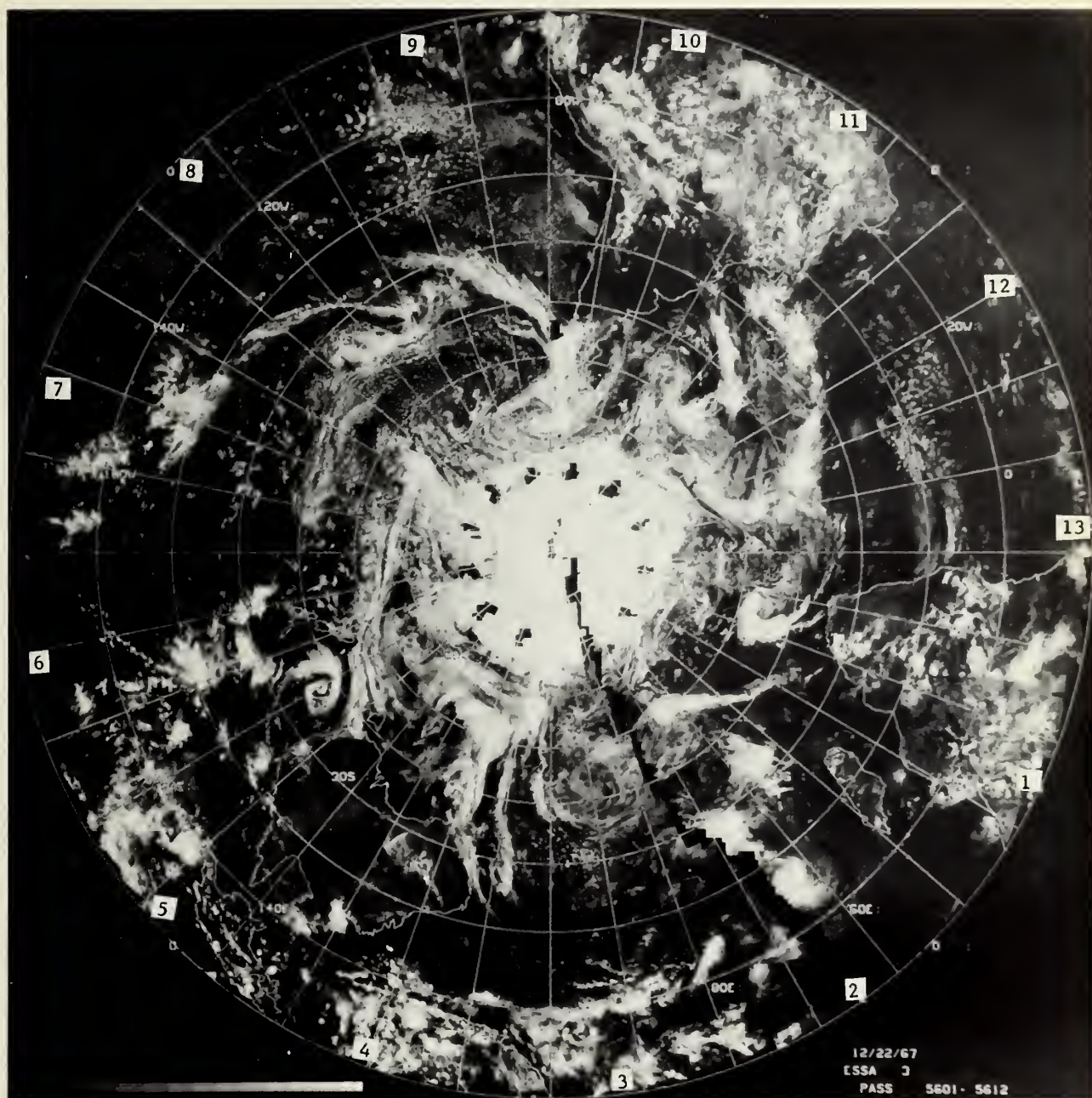




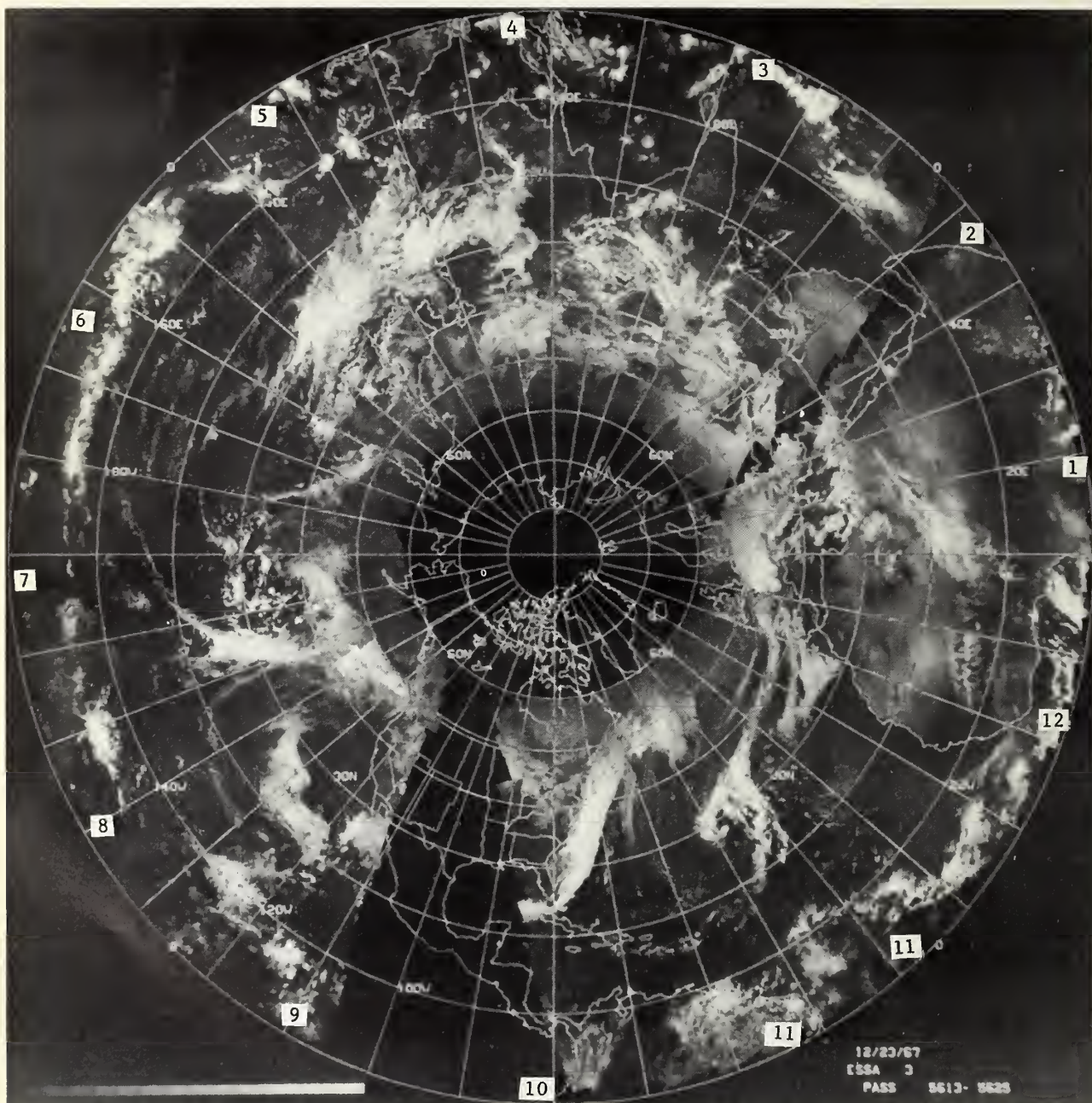


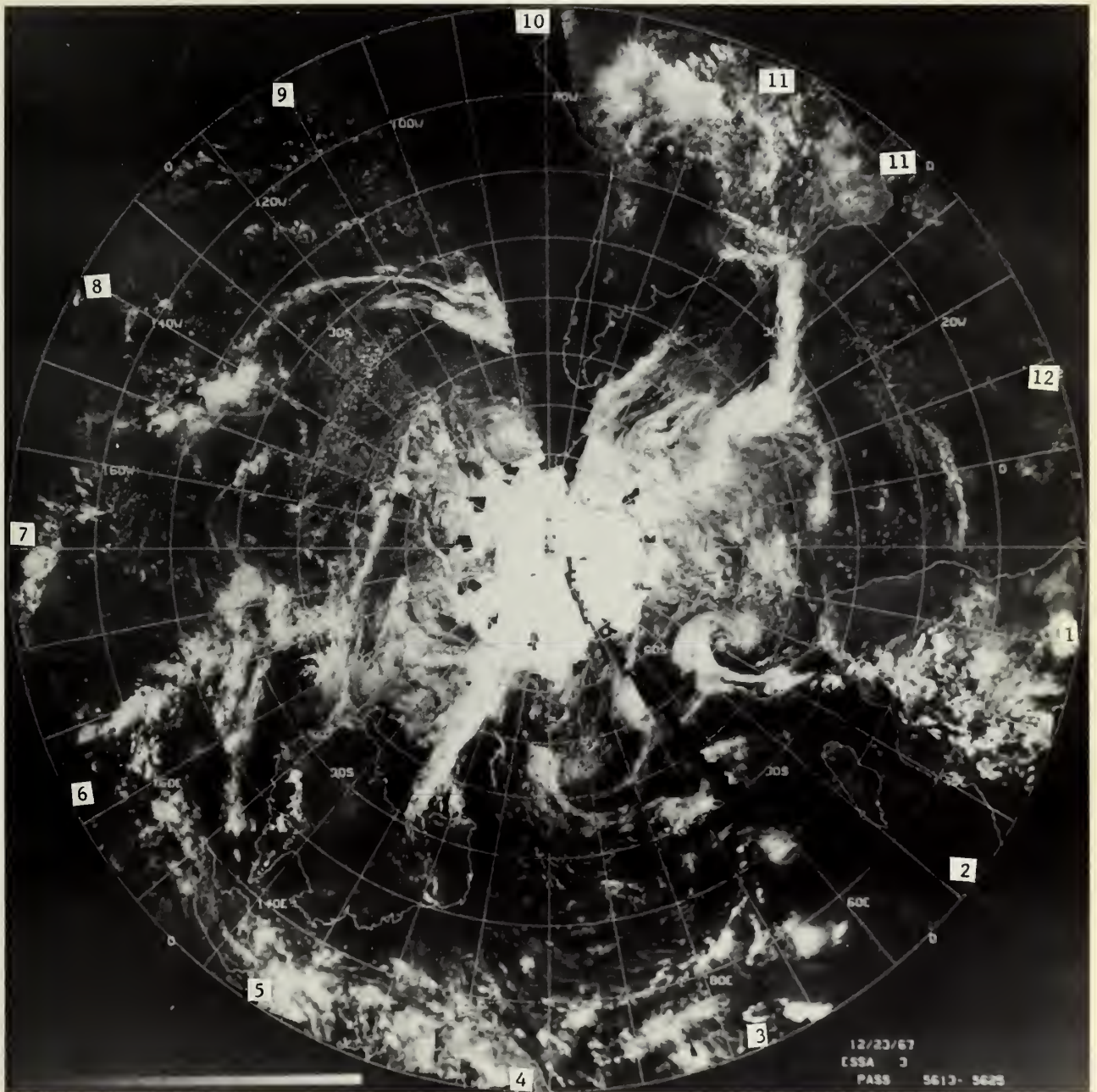


12/22/67  
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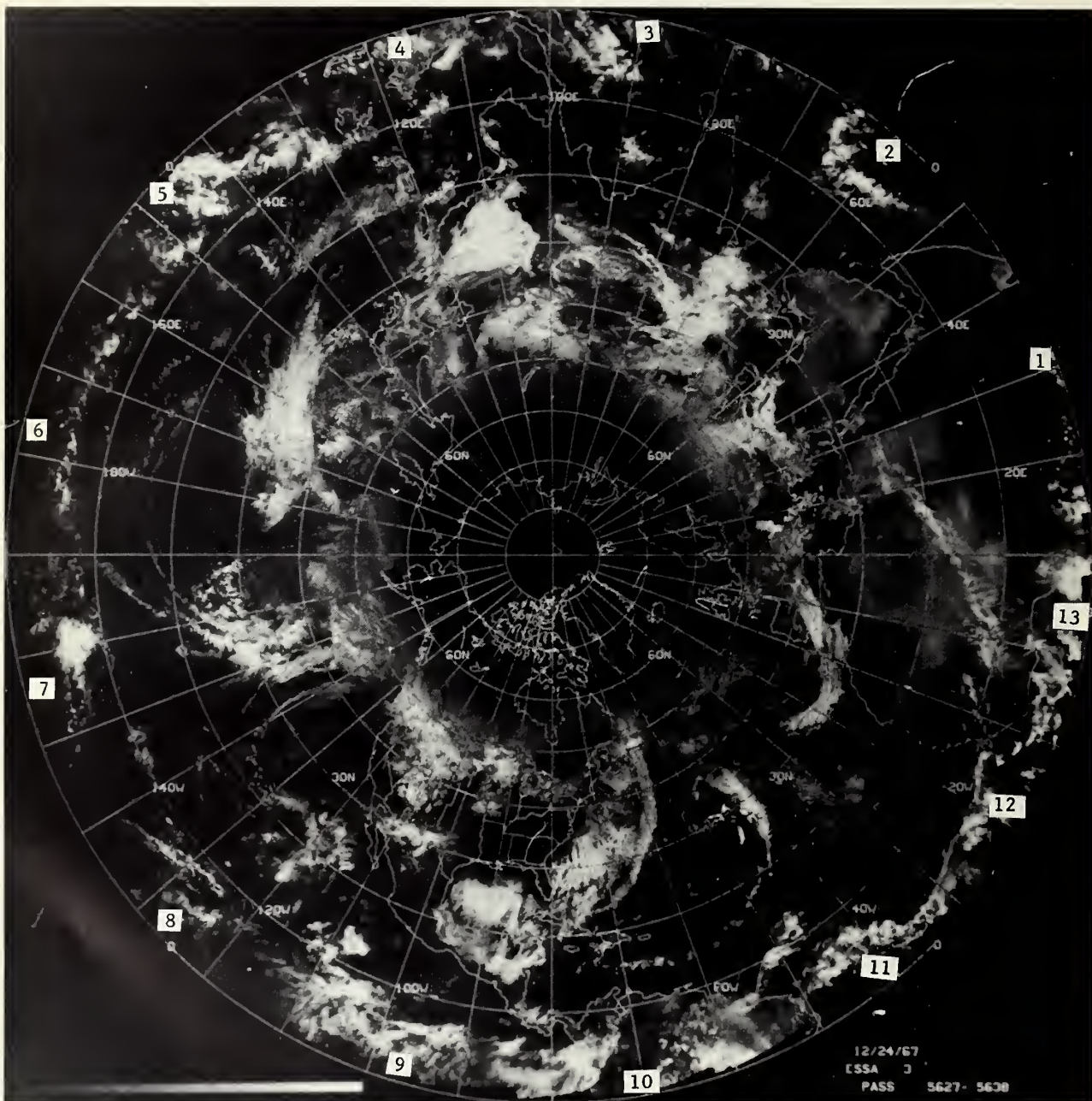


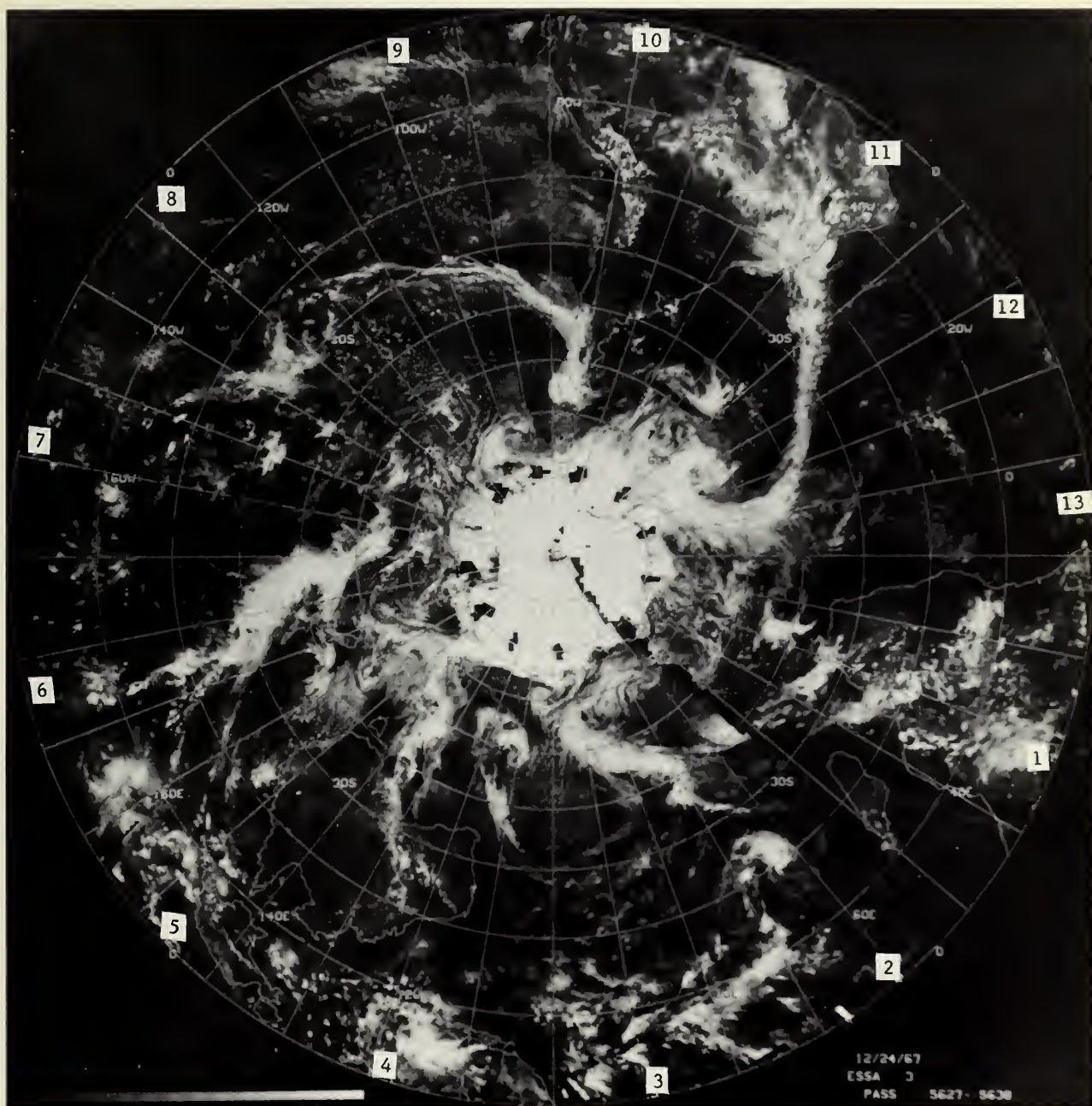




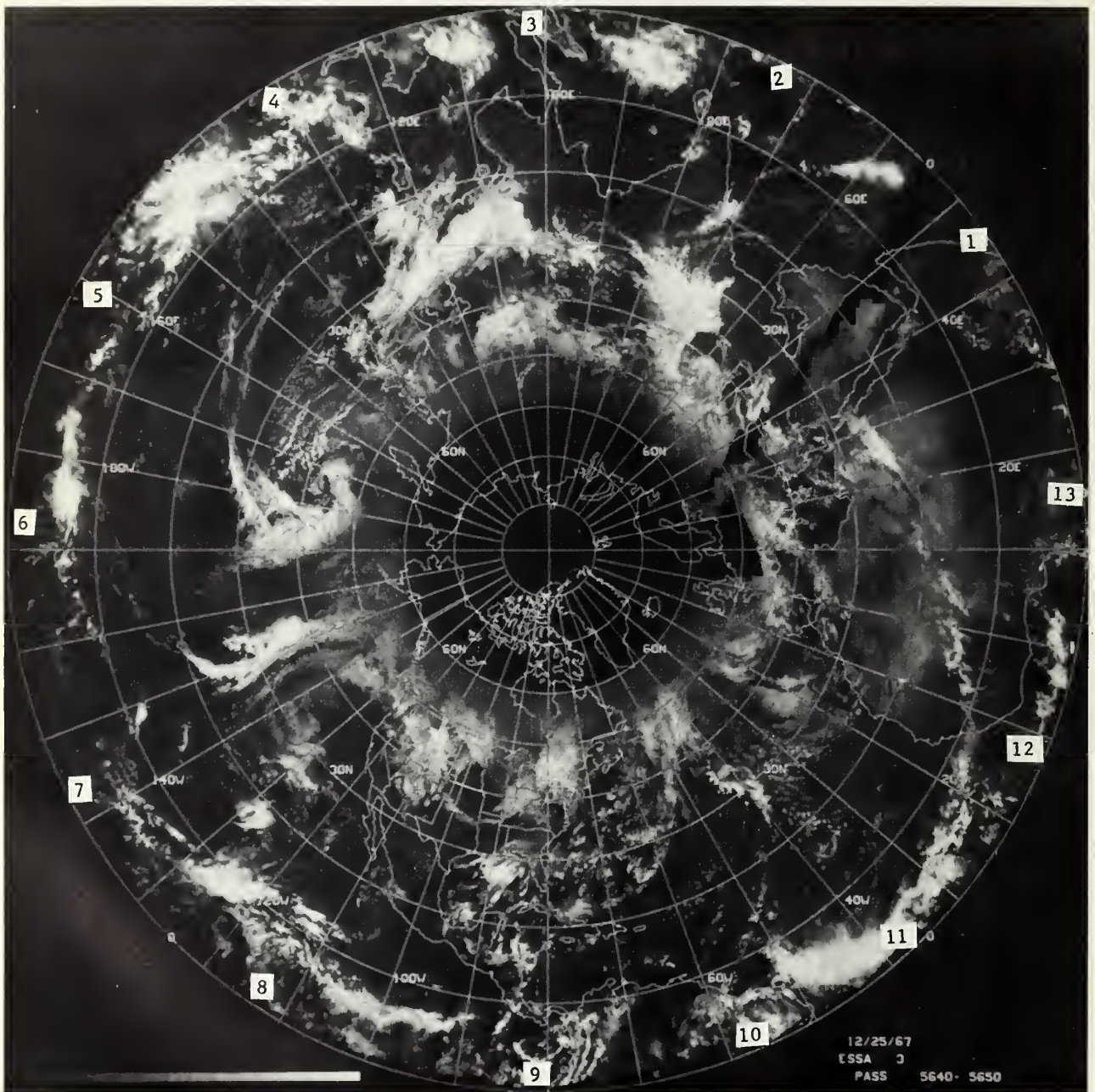


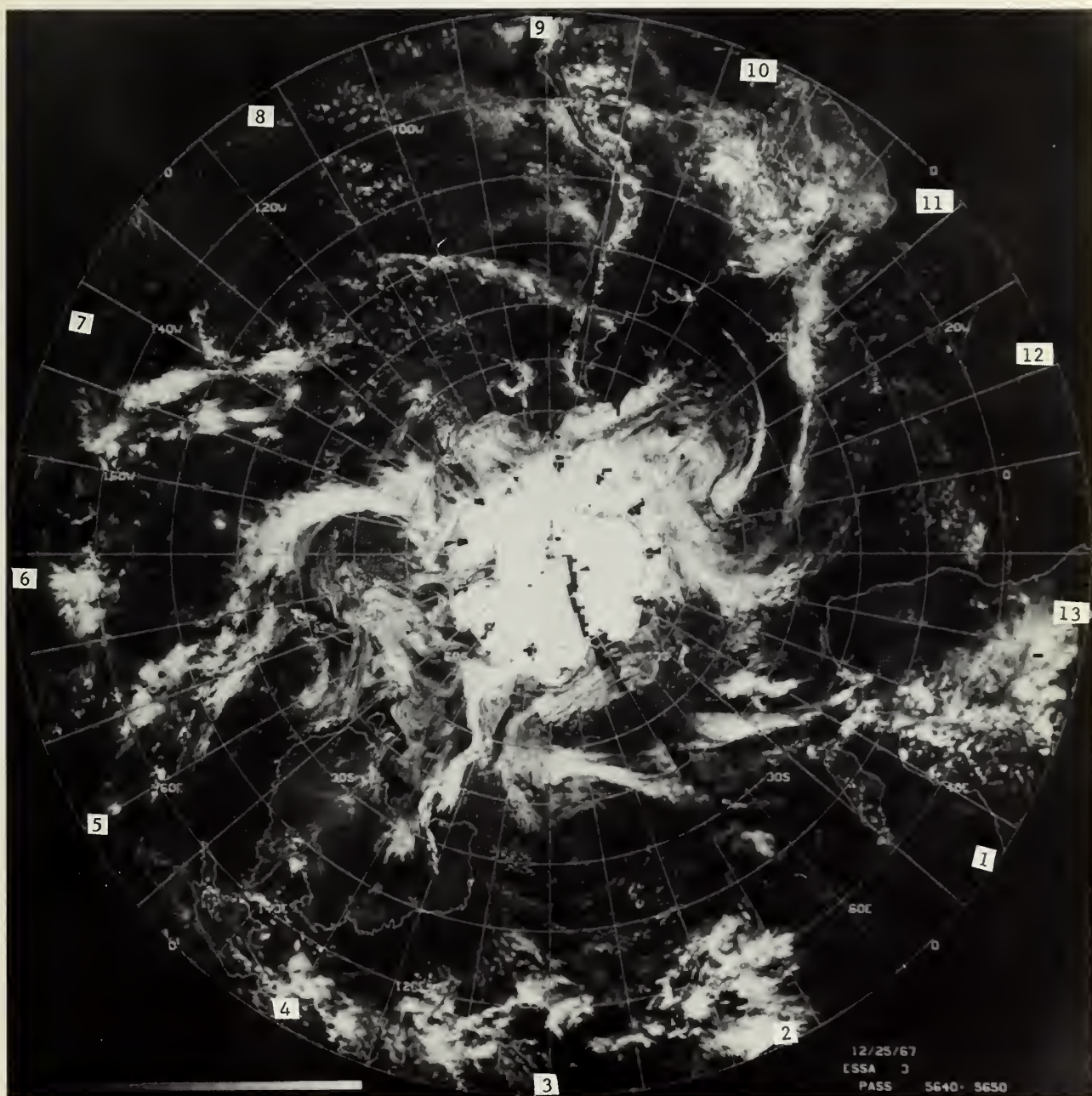




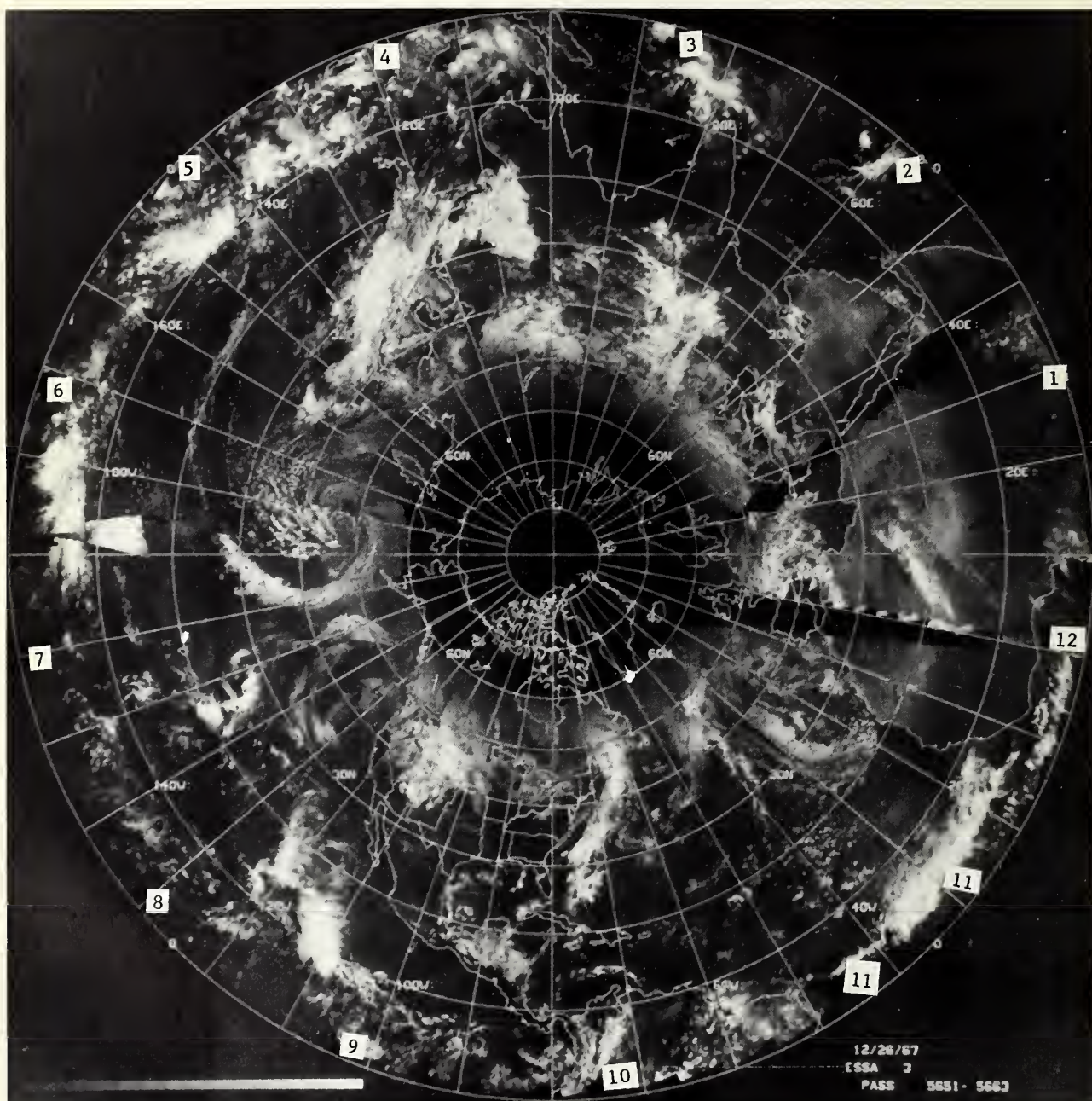


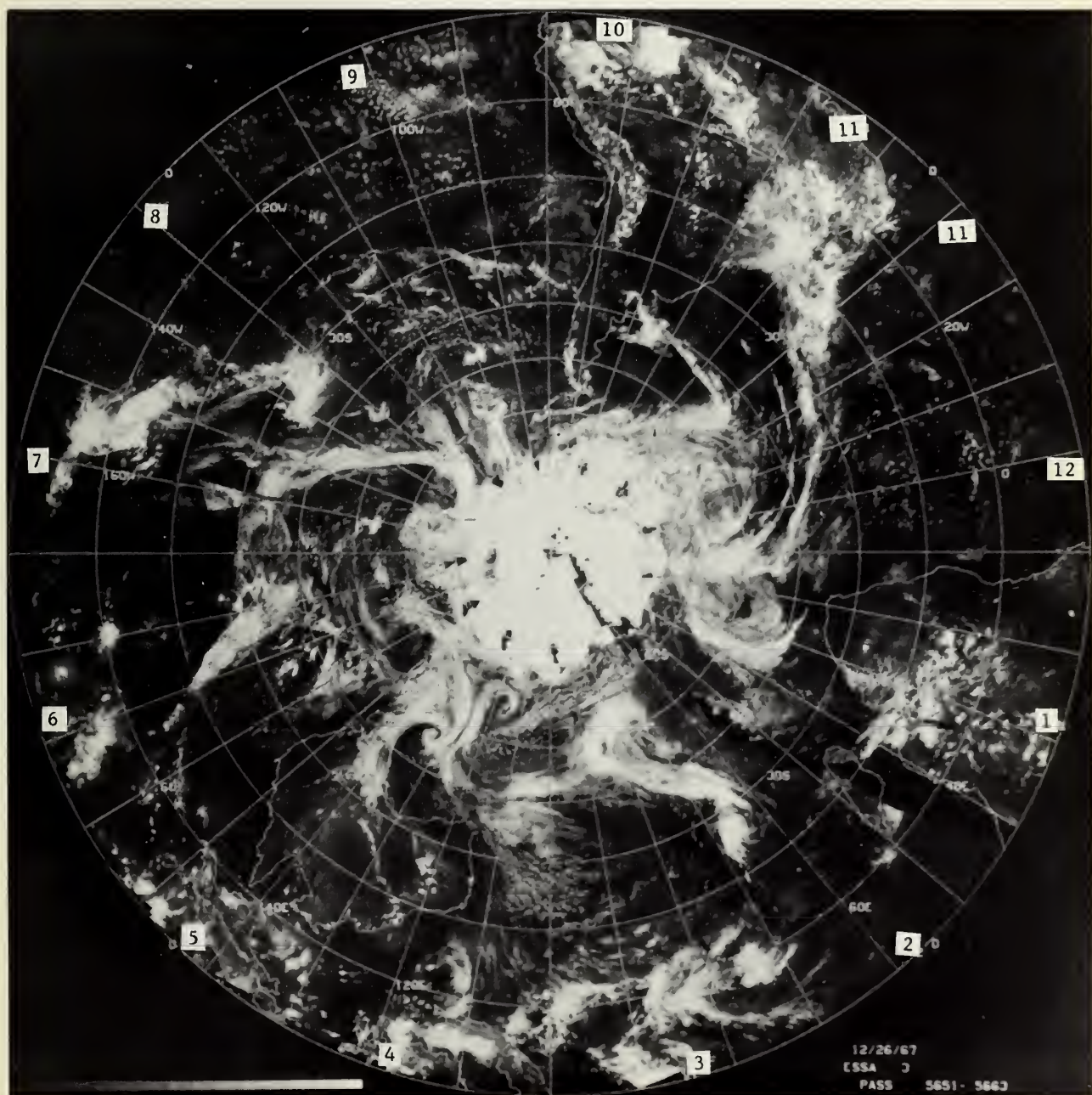




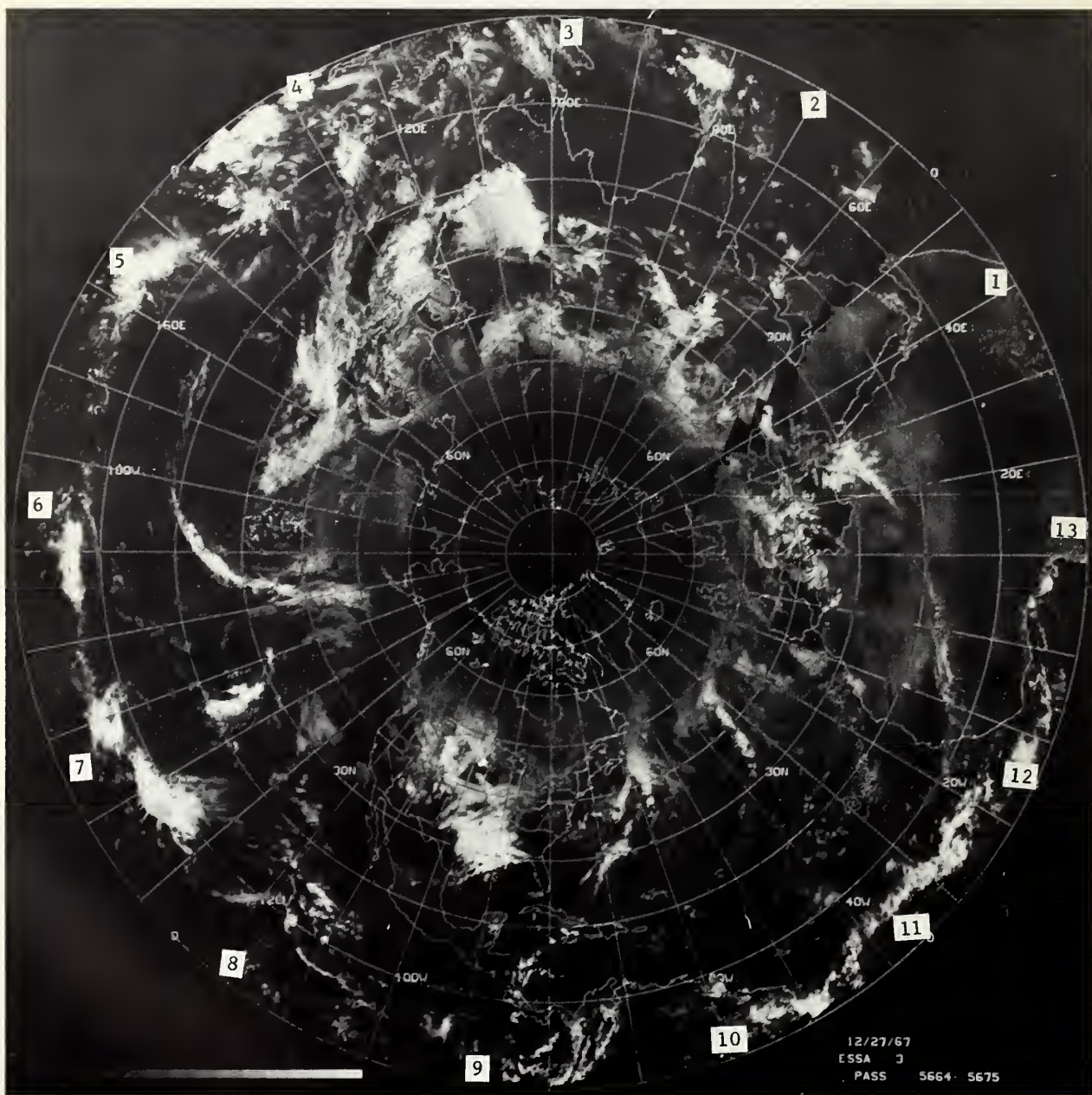


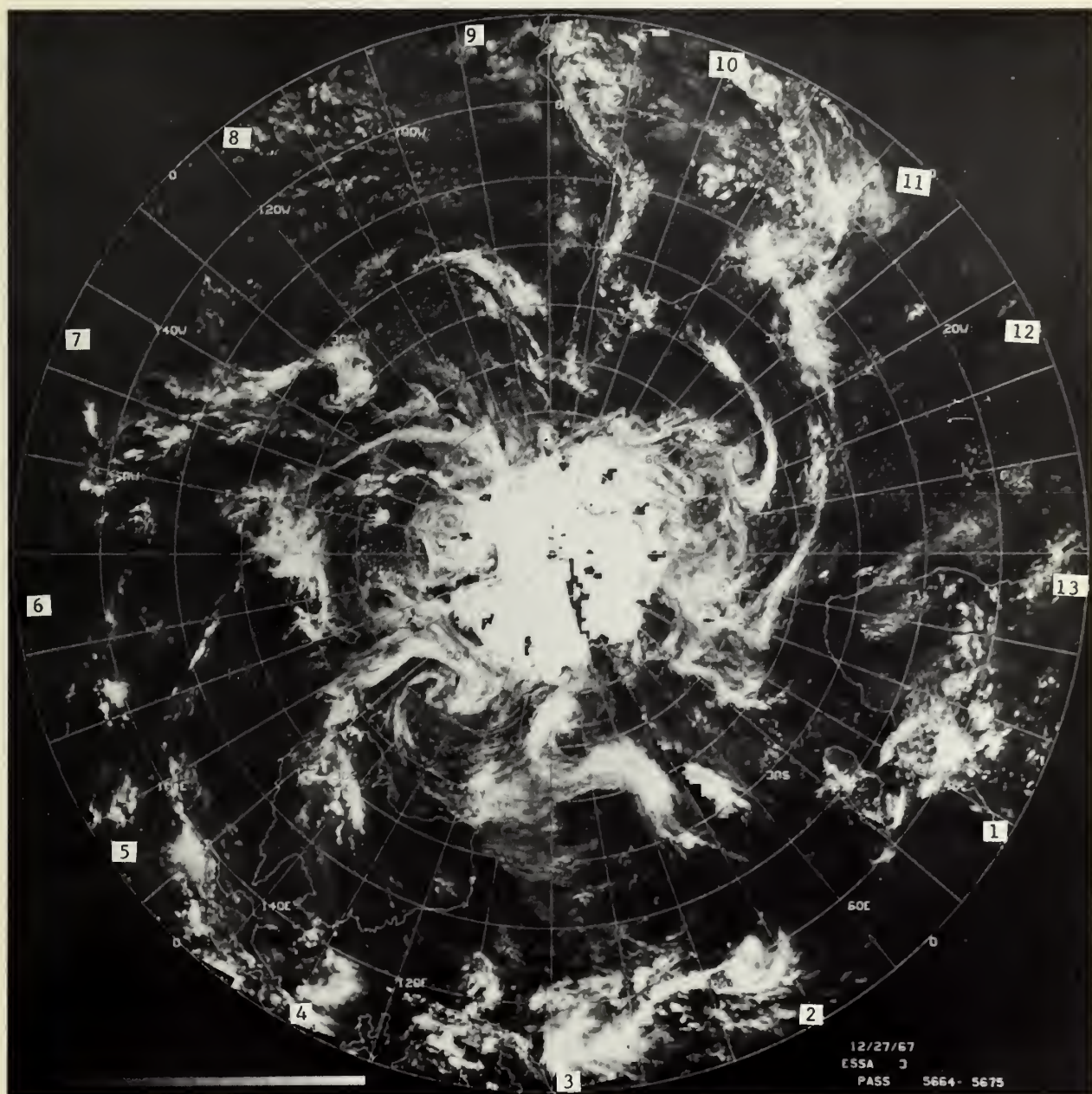




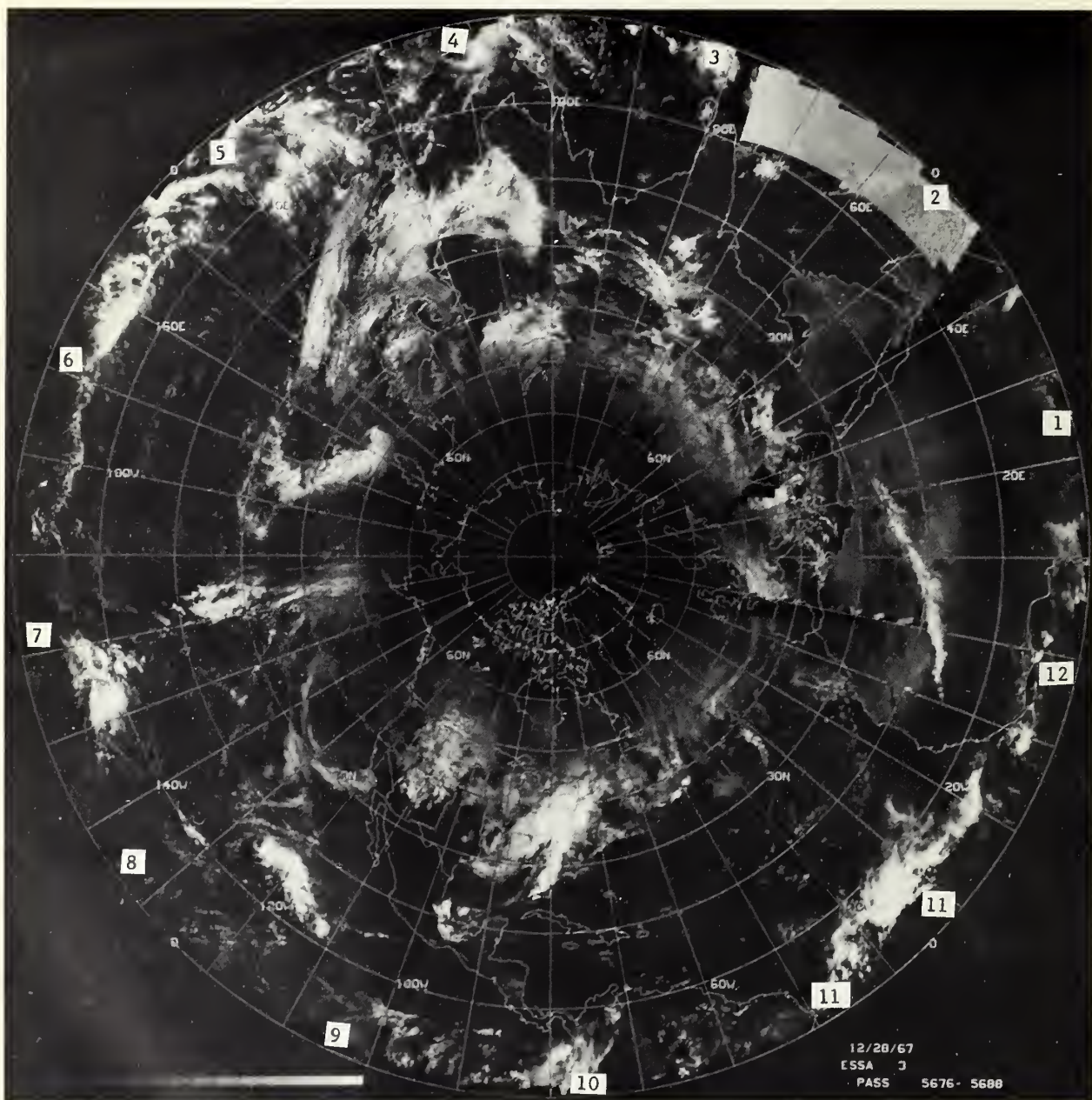


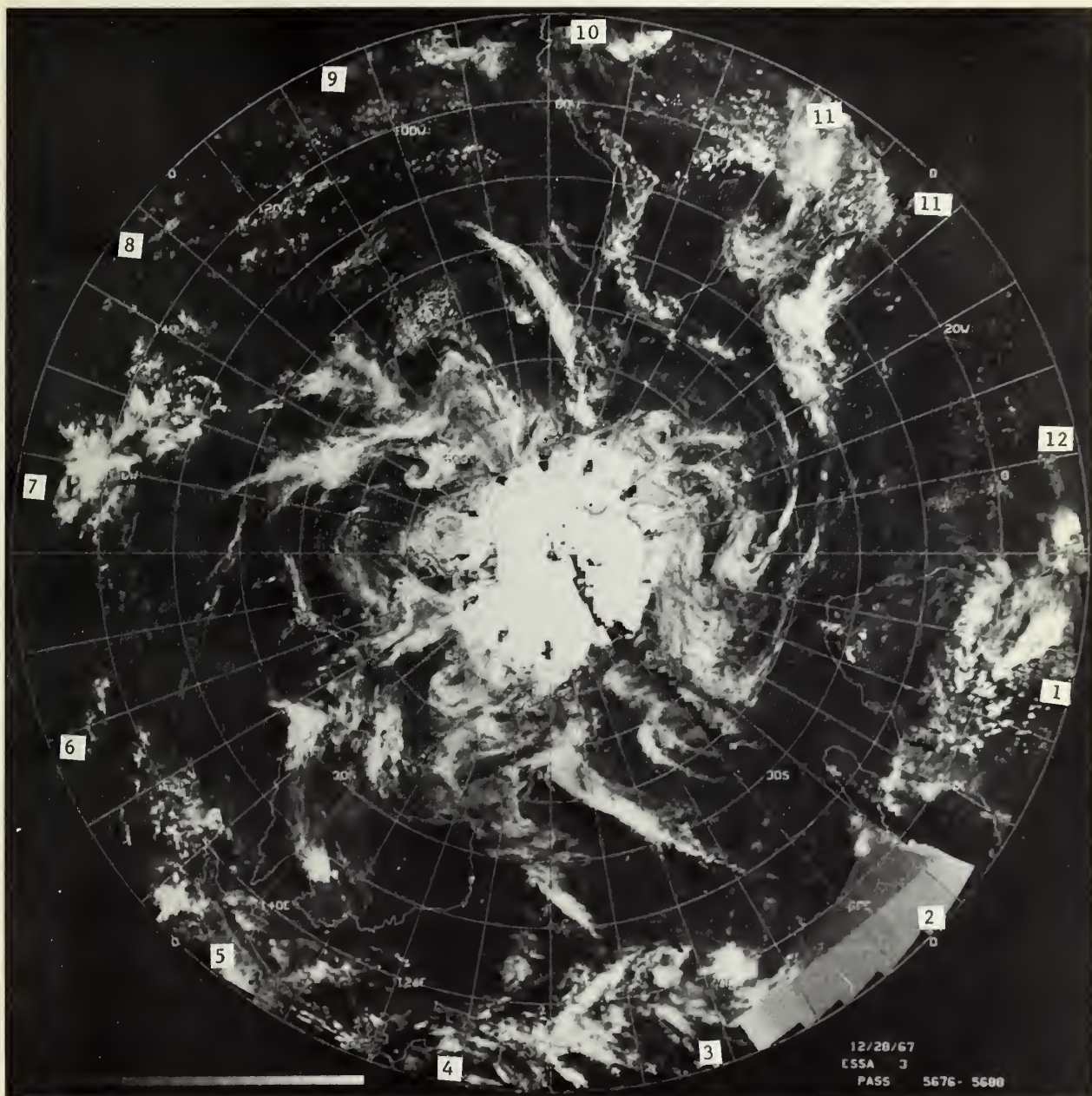




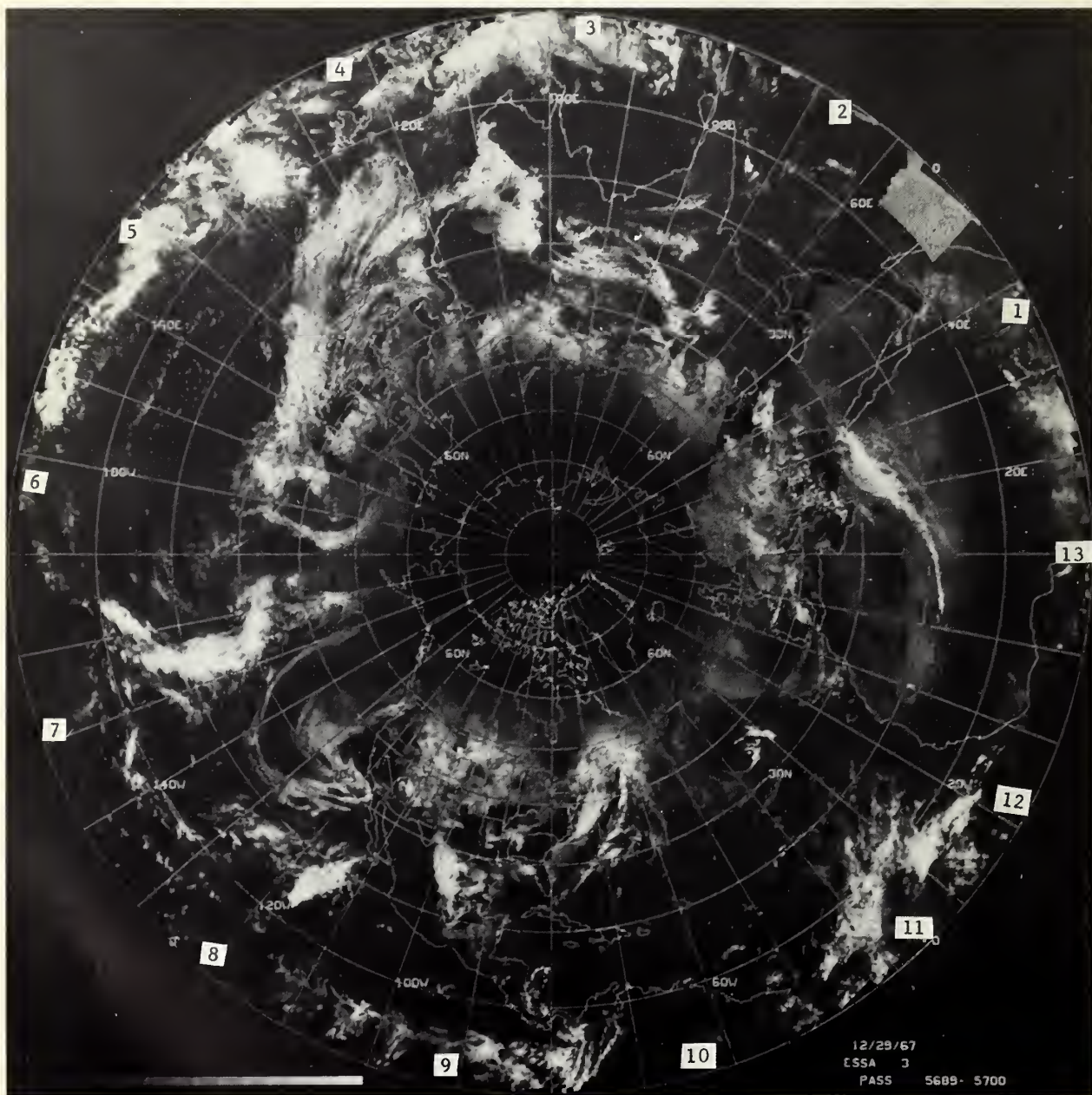


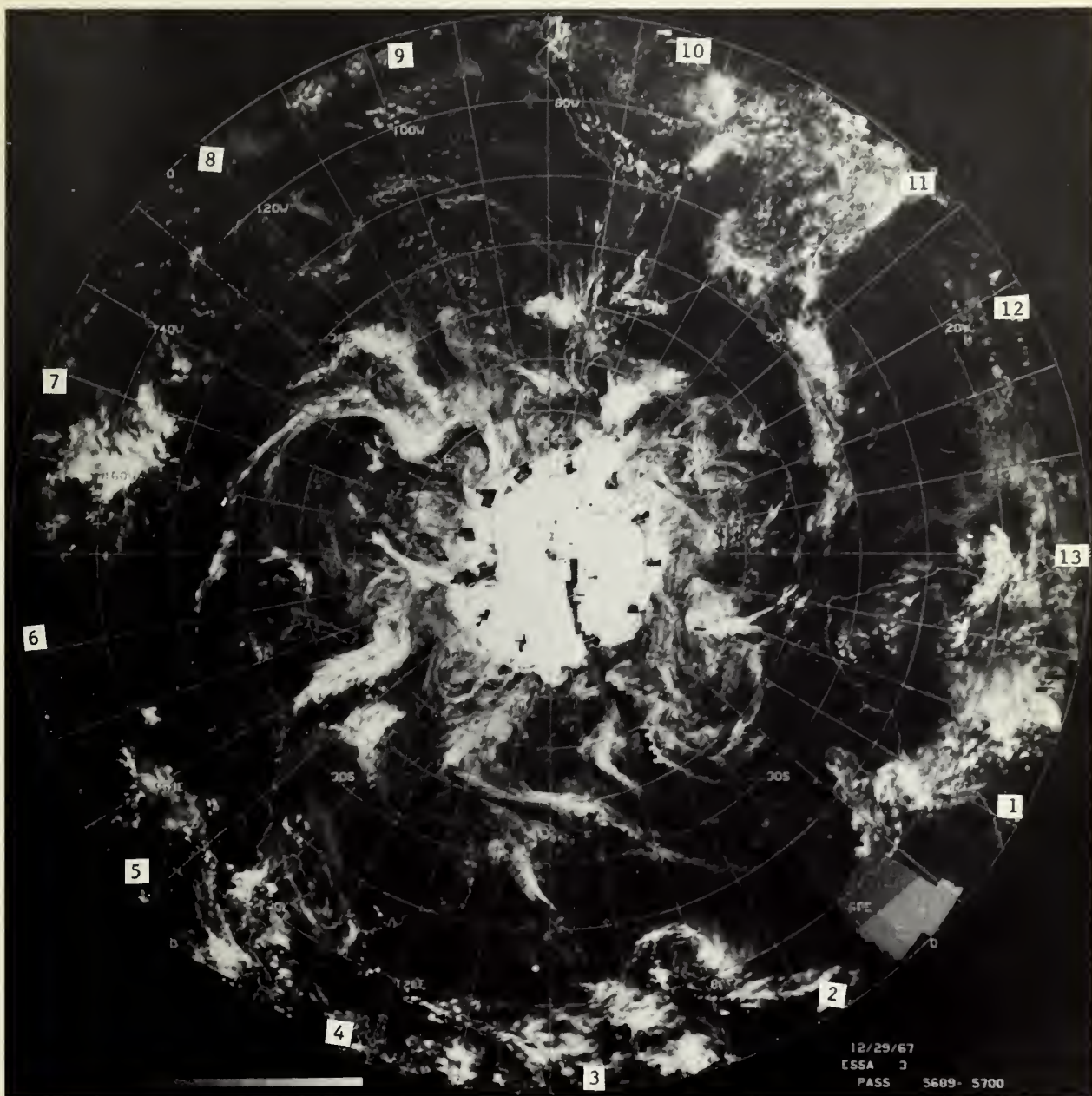




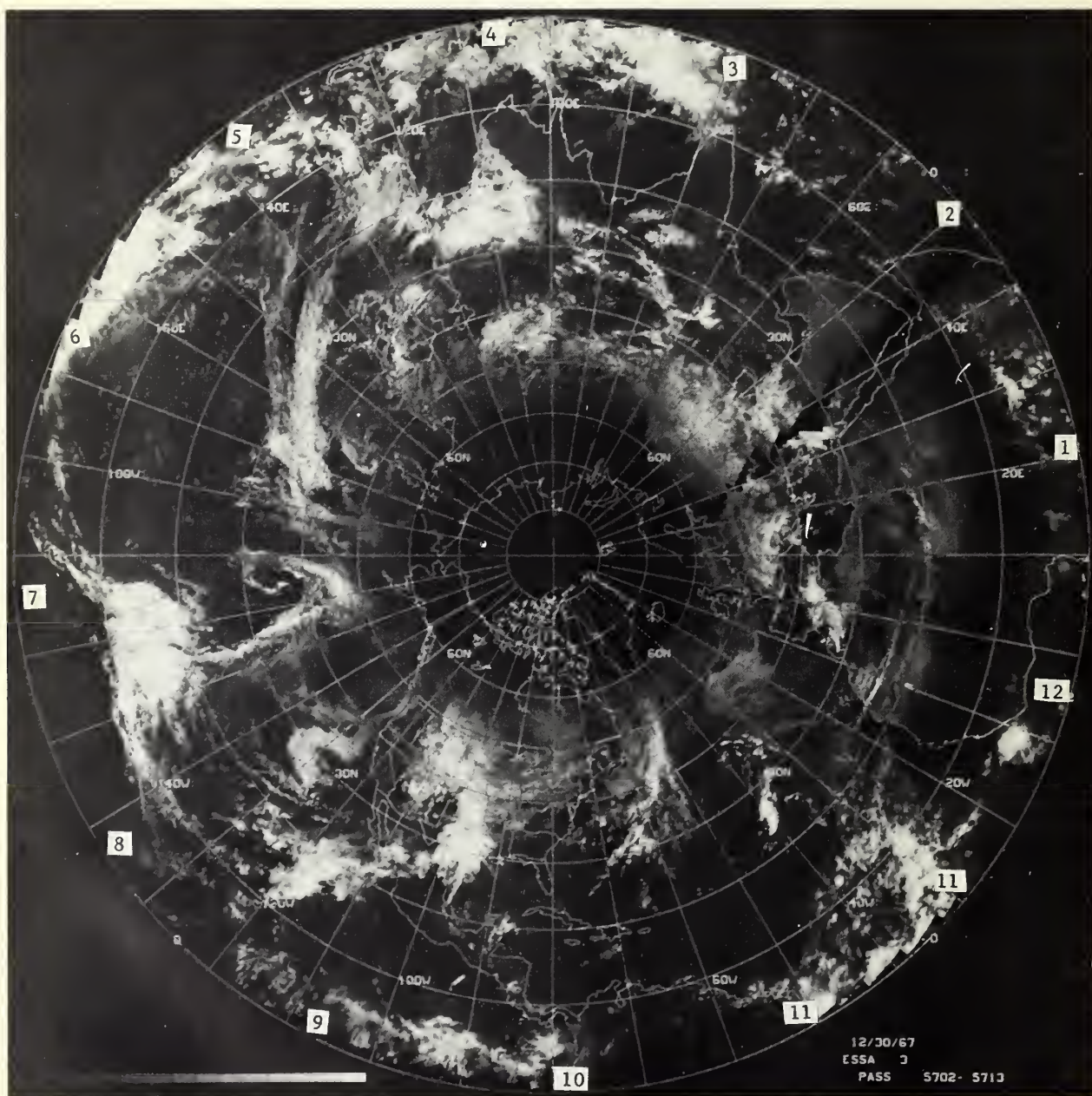


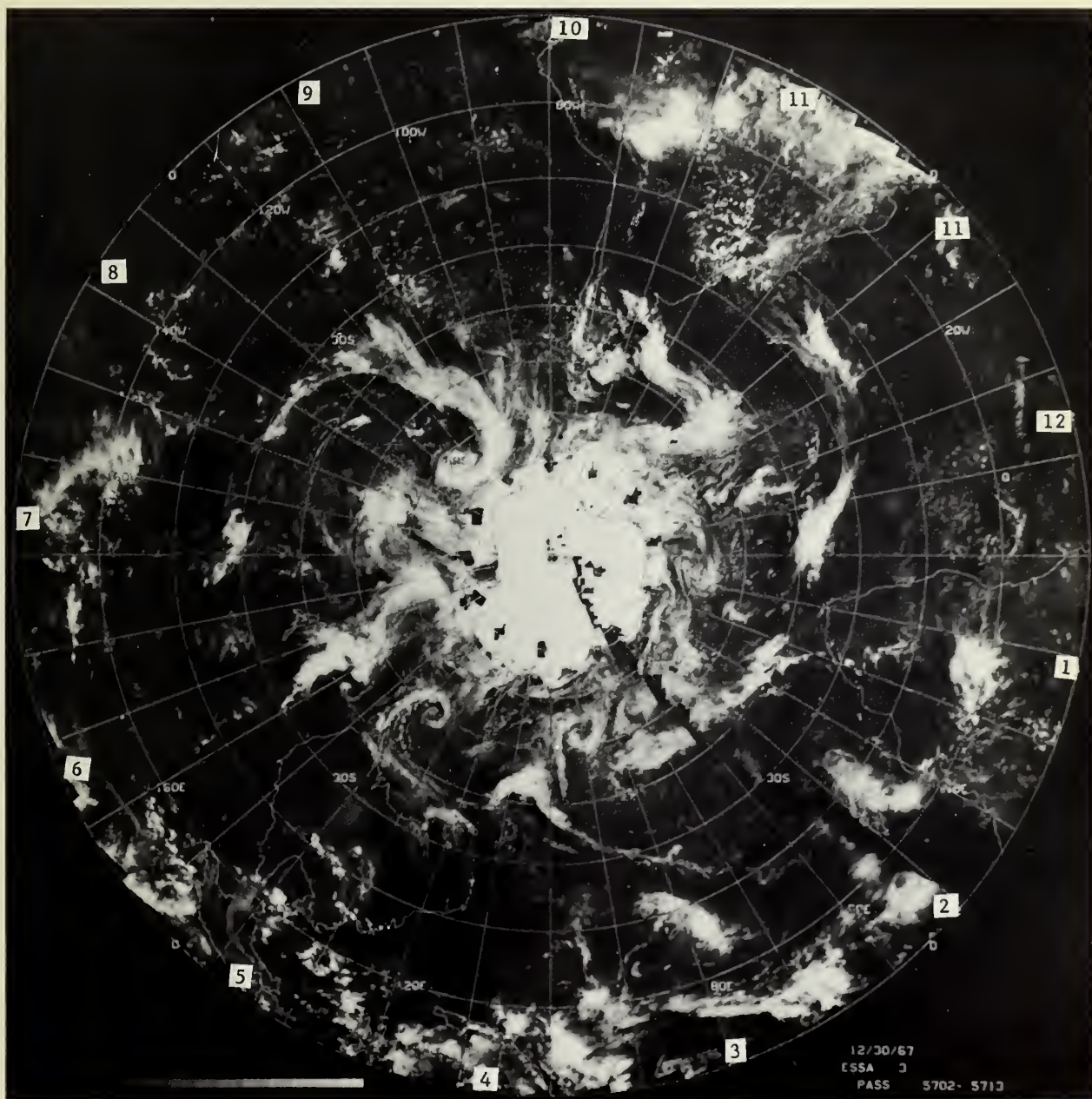




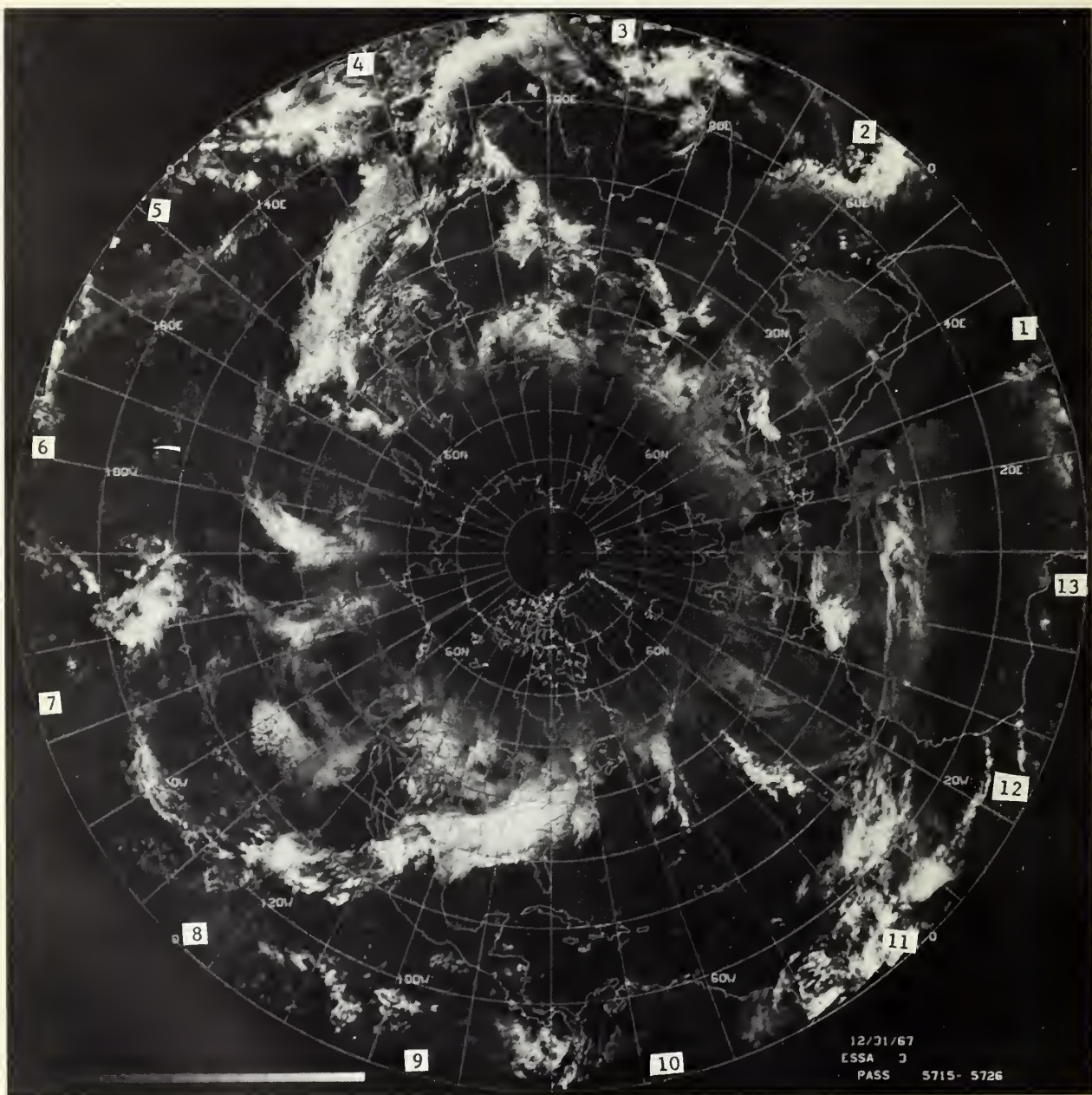


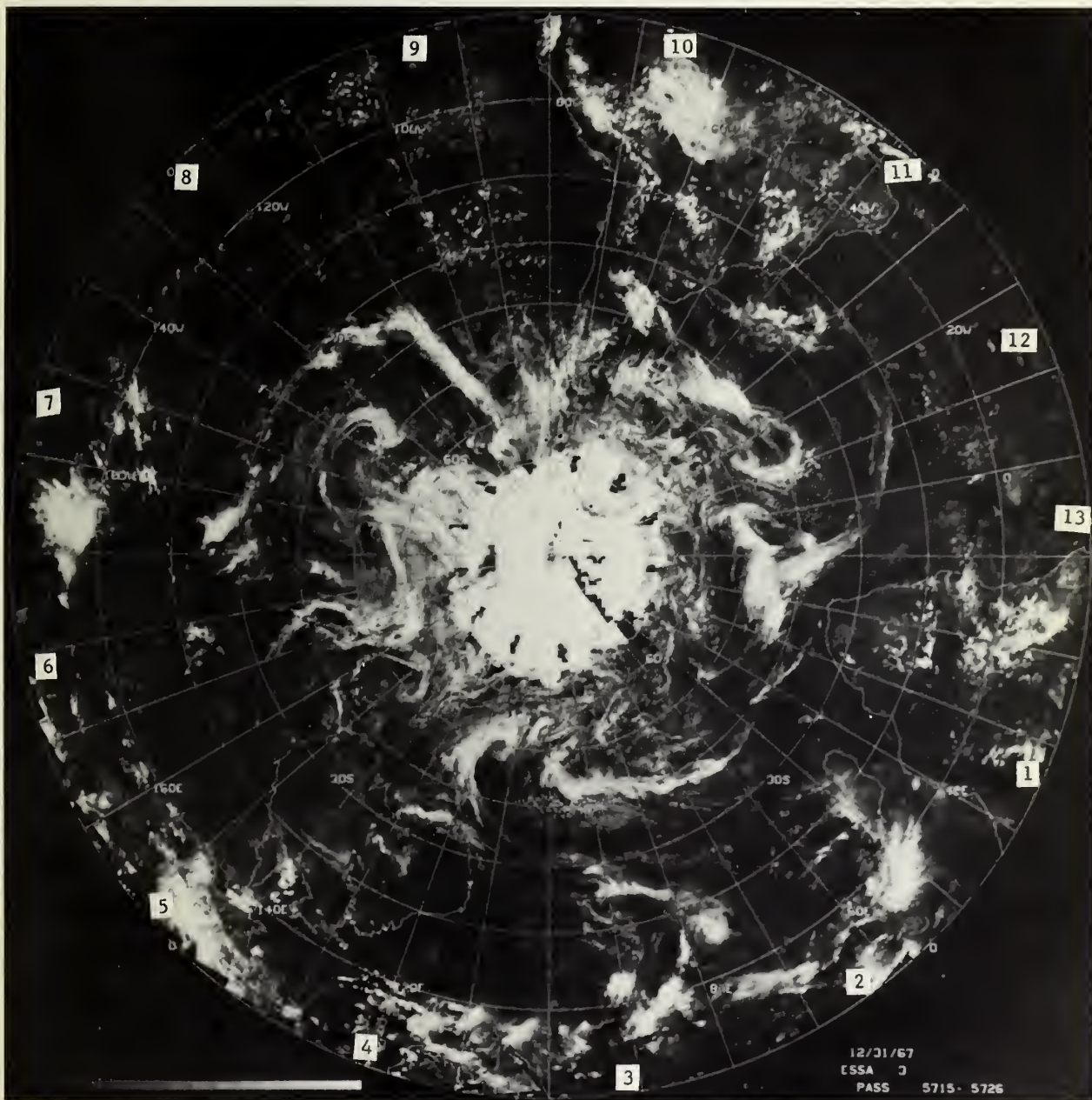
















- No. 5.38 "Catalogue of Meteorological Satellite Data - TIROS VIII Television Cloud Photography Part 3 January 1, 1965 to August 31, 1965", published in 1966, price 45 cents.
- No. 5.39 "Catalogue of Meteorological Satellite Data - TIROS IX Television Cloud Photography Part 1 January 22, 1965 to April 30, 1965", published in 1966, price \$1.75.
- No. 5.39 "Catalogue of Meteorological Satellite Data - TIROS IX Television Cloud Photography Part 2 May 1, 1965 to July 26, 1965", published in 1967, price \$1.25.
- No. 5.310 "Catalogue of Meteorological Satellite Data - TIROS X Television Cloud Photography Part 1 July 2, 1965 to September 30, 1965", published in 1967, price \$1.25.
- No. 5.311 "Catalogue of Meteorological Satellite Data - ESSA 1 Television Cloud Photography Part 1 February 3, 1966 to March 31, 1966", published in 1966, price \$1.00.
- No. 5.311 "Catalogue of Meteorological Satellite Data - ESSA 1 Television Cloud Photography Part 2 April 1, 1966 to October 6, 1966", in press.
- No. 5.313 "Catalog of Meteorological Satellite Data - ESSA 3 Television Cloud Photography Part 1 October 4, 1966 to January 1, 1967", published in 1968, price 75 cents.
- No. 5.313 "Catalog of Meteorological Satellite Data - ESSA 3 Television Cloud Photography Part 2 January 1, 1967 to March 31, 1967", published in 1967, price \$1.50.
- No. 5.314 "Catalog of Meteorological Satellite Data - ESSA 3 and ESSA 5 Television Cloud Photography April 1, 1967 to June 30, 1967", published in 1968, price \$1.75.
- No. 5.315 "Catalog of Meteorological Satellite Data - ESSA 3 and ESSA 5 Television Cloud Photography July 1, 1967 to September 30, 1967", published in 1968, price \$2.00



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